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Distribution of Phytoplankton in Louisiana Lakes

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This is a data report presenting the species and abundance of phytoplankton in the 19 lakes sampled by the National Eutrophication Survey in the State of Louisiana. Results from the calculation of several water quality indices are also included (Nygaard's Trophic State Index, Palmer's Organic Pollution Index, and species diversity and abundance indices).

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DISTRIBUTION OF PHYTOPLANKTON IN LOUISIANA LAKES

by

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FOREWORD

Protection of the environment requires effective regulatory actions which are based on sound technical and scientific information. This information must include the quantitative description and linking of pollutant sources, transport mechanisms, interactions, and resulting effects on man and his environment. Because of the complexities involved, assessment of specific pollutants in the environment requires a total systems approach which transcends the media of air, water, and land. The Environmental Monitoring and Support Laboratory-Las Vegas contributes to the formation and enhancement of a sound monitoring data base for exposure assessment through programs designed to:

- develop and optimize systems and strategies for monitoring pollutants and their impact on the environment
- demonstrate new monitoring systems and technologies by applying them to fulfill special monitoring needs of the Agency's operating programs

This report presents the species and abundance of phytoplankton in the 19 lakes sampled by the National Eutrophication Survey in the State of Louisiana, along with results from the calculation of several commonly used biological indices of water quality and community structure. These data can be used to biologically characterize the study lakes, and as baseline data for future investigations. This report was written for use by Federal, State, and local governmental agencies concerned with water quality analysis, monitoring, and or regulation. Private industry and individuals similarly involved with the biological aspects of water quality will find the document useful. For further information contact the Water and Land Quality Branch, Monitoring Operations Division.

George B. Morgan
Director
Environmental Monitoring and Support Laboratory
Las Vegas

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INTRODUCTION

The collection and analysis of phytoplankton data were included in the National Eutrophication Survey in an effort to determine relationships between algal characteristics and trophic status of individual lakes.

During spring, summer, and fall of 1974, the Survey sampled 179 lakes in 10 States. Over 700 algal species and varieties were identified and enumerated from the 573 water samples examined.

This report presents the species and abundance of phytoplankton in the 19 lakes sampled in the State of Louisiana (Table 1). The Nygaard's Trophic State (Nygaard 1949), Palmer's Organic Pollution (Palmer 1969), and species diversity and abundance indices are also included.

TABLE 1. LAKES SAMPLED IN THE STATE OF LOUISIANA

STORET No.	Lake Name	County
2201	Anacoco Lake	Vernon
2202	Bruin Lake	Tensas
2203	Lake Bistineau	Bienville, Webster
2204	Black Bayou	Caddo
2205	Bundicks Lake	Beauregard
2206	Caddo Lake	Marion, Harrison, (Caddo in Texas)
2207	Cocodrie Lake	Concordia
2208	Cotile Lake	Rapides
2209	Concordia Lake	Concordia
2210	Cross Lake	Caddo
2211	D'Arbonne Lake	Union
2212	False River Lake	Pointe Coupee

(Continued)

TABLE 1. LAKES SAMPLED IN THE STATE OF LOUISIANA (Continued)

STORET No.	Lake Name	County
2213	Indian Creek	Rapides
2214	Saline Lake	LaSalle
2215	Turkey Creek	Franklin
2216	Lake Verret	Assumption
2217	Lake Vernon	Vernon
2219	Black Lake	
2220	Cocodrie Lake (lower)	Rapides

MATERIALS AND METHODS

LAKE AND SITE SELECTION

Lakes and reservoirs included in the Survey were selected through discussions with State water pollution agency personnel and U.S. Environmental Protection Agency Regional Offices (U.S. Environmental Protection Agency 1975). Screening and selection strongly emphasized lakes with actual or potential accelerated eutrophication problems. As a result, the selection was limited to lakes:

(1) impacted by one or more municipal sewage treatment plant outfalls either directly into the lake or by discharge to an inlet tributary within approximately 40 kilometers of the lake;

(2) 40 hectares or larger in size; and

(3) with a mean hydraulic retention time of at least 30 days.

Specific selection criteria were waived for some lakes of particular State interest.

Sampling sites for a lake were selected based on available information on lake morphometry, potential major sources of nutrient input, and on-site judgment of the field limnologist (U.S. Environmental Protection Agency 1975). Primary sampling sites were chosen to reflect the deepest portion of each major basin in a test lake. Where many basins were present, selection was guided by nutrient source information on hand. At each sampling site, a depth-integrated phytoplankton sample was taken. Depth-integrated samples were uniform mixtures of water from the surface to a depth of 15 feet (4.6 meters) or from the surface to the lower limit of the photic zone representing 1 percent of the incident light, whichever was greater. If the depth at the sampling site was less than 15 feet (4.6 meters), the sample was taken from just off the bottom to the surface. Normally, a lake was sampled three times in 1 year, providing information on spring, summer, and fall conditions.

SAMPLE PREPARATION

To preserve the sample 4 milliliters (ml) of Acid-Lugol's solution (Prescott 1970) were added to each 130-ml sample from each site at the time of collection. The samples were shipped to the Environmental Monitoring and Support Laboratory, Las Vegas, Nevada, where equal volumes from each site

were mixed to form two 130-ml composite samples for a given lake. One composite sample was put into storage and the other was used for the examination.

Prior to examination, the composite samples were concentrated by the settling method. Solids were allowed to settle for at least 24 hours prior to siphoning off the supernate. The volume of the removed supernate and the volume of the remaining concentrate were measured and concentrations determined. A small (8-ml) library subsample of the concentrate was then taken. The remaining concentrate was gently agitated to resuspend the plankton and poured into a capped, graduated test tube. If a preliminary examination of a sample indicated the need for a more concentrated sample, the contents of the test tube were further concentrated by repeating the settling method. Final concentrations varied from 15 to 40 times the original.

Permanent slides were prepared from concentrated samples after analysis was complete. A ring of clear Karo® corn syrup with phenol (a few crystals of phenol were added to each 100 ml of syrup) was placed on a glass slide. A drop of superconcentrate from the bottom of the test tube was placed in the ring. This solution was thoroughly mixed and topped with a coverglass. After the syrup at the edges of the coverglass had hardened, the excess was scraped away and the mount was sealed with clear fingernail polish. Permanent diatom slides were prepared by drying sample material on a coverglass, heating in a muffle furnace at 400° C for 45 minutes, and mounting in Hyrax®. Finally, the mounts were sealed with clear fingernail polish.

Backup samples, library samples, permanent sample slides, and Hyrax®-mounted diatom slides are being stored and maintained at the Environmental Monitoring and Support Laboratory-Las Vegas.

EXAMINATION

The phytoplankton samples were examined with the aid of binocular compound microscopes. A preliminary examination was performed to precisely identify and list all forms encountered. The length of this examination varied depending on the complexity of the sample. An attempt was made to find and identify all of the forms present in each sample. Often forms were observed which could not be identified to species or to genus. Abbreviated descriptions were used to keep a record of these forms (e.g., lunate cell, blue-green filament, Navicula #1). Diatom slides were examined using a standard light microscope. If greater resolution was essential to accurately identify the diatoms, a phase-contrast microscope was used.

After the species list was compiled, phytoplankton were enumerated using a Neubauer Counting Chamber with a 40X objective lens and a 10X ocular lens. All forms within each field were counted. The count was continued until a minimum of 100 fields had been viewed, or until the dominant form had been observed a minimum of 100 times.

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QUALITY CONTROL

Project phycologists performed internal quality control intercomparisons regularly on 7 percent of the species identification and counts. Although an individual had primary responsibility for analyzing a sample, taxonomic problems were discussed among the phycologists.

Additional quality control checks were performed on the Survey samples by Dr. G. W. Prescott of the University of Montana at the rate of 5 percent. Quality control checks were made on 75 percent of these samples to verify species identifications while checks were made on the remaining 25 percent of the samples to verify genus counts. Presently, the agreement between quality control checks for species identification and genus enumerations is satisfactory.

RESULTS

A phytoplankton species list for the State is presented in Appendix A. Appendix B summarizes all of the phytoplankton data collected from the State by the Survey. The latter is organized by lake, and includes an alphabetical phytoplankton species list with concentrations for individual species given by sampling date. Results from the application of several indices are presented (Nygaard's Trophic State, Palmer's Organic Pollution, and species diversity and abundance). Each lake has been assigned a four-digit STORET number. (STORET (STOrage and RETrieval) is the U.S. Environmental Protection Agency's computer system which processes and maintains water quality data.) The first two digits of the STORET number identify the State; the last two digits identify the lake.

NYGAARD'S TROPHIC STATE INDICES

Five indices devised by Nygaard (1949) were proposed under the assumption that certain algal groups are indicative of levels of nutrient enrichment. These indices were calculated in order to aid in determining the surveyed lakes' trophic status. As a general rule, Cyanophyta, Euglenophyta, centric diatoms, and members of the Chlorococcales are found in waters that are eutrophic (rich in nutrients), while desmids and many pennate diatoms generally cannot tolerate high nutrient levels and so are found in oligotrophic waters (poor in nutrients).

In applying the indices to the Survey data, the number of taxa in each major group was determined from the species list for each sample. The ratios of these groups give numerical values which can be used as a biological index of water richness. The five indices and the ranges of values established for Danish lakes by Nygaard for each trophic state are presented in Table 2. The appropriate symbol, (E) eutrophic and (O) oligotrophic, follows each calculated value in the tables in Appendix B. A question mark (?) following a calculated value in these tables was entered when that value was within the range of both classifications.

PALMER'S ORGANIC POLLUTION INDICES

Palmer (1969) analyzed reports from 165 authors and developed algal pollution indices for use in rating water samples with high organic pollution. Two lists of organic-pollution-tolerant forms were prepared, one containing 20 genera, the other, 20 species (Tables 3 and 4). Each form was assigned a pollution index number ranging from 1 for moderately tolerant forms to 6 for

TABLE 2. NYGAARD'S TROPHIC STATE INDICES ADAPTED FROM HUTCHINSON (1967)

Index	Calculation	Oligotrophic	Eutrophic
Myxophycean	$\frac{\text{Myxophyceae}}{\text{Desmideae}}$	0.0-0.4	0.1-3.0
Chlorophycean	$\frac{\text{Chlorococcales}}{\text{Desmideae}}$	0.0-0.7	0.2-9.0
Diatom	$\frac{\text{Centric Diatoms}}{\text{Pennate Diatoms}}$	0.0-0.3	0.0-1.75
Euglenophyte	$\frac{\text{Euglenophyta}}{\text{Myxophyceae + Chlorococcales}}$	0.0-0.2	0.0-1.0
Compound	$\frac{\text{Myxophyceae + Chlorococcales + Centric Diatoms + Euglenophyta}}{\text{Desmideae}}$	0.0-1.0	1.2-25

TABLE 3. ALGAL GENUS POLLUTION INDEX (Palmer 1969)

Genus	Pollution Index
Anacystis	1
Ankistrodesmus	2
Chlamydomonas	4
Chlorella	3
Closterium	1
Cyclotella	1
Euglena	5
Gomphonema	1
Lepocinclis	1
Melosira	1
Micractinium	1
Navicula	3
Nitzschia	3
Oscillatoria	5
Pandorina	1
Phacus	2
Phormidium	1
Scenedesmus	4
Stigeoclonium	2
Synedra	2

TABLE 4. ALGAL SPECIES POLLUTION INDEX (Palmer 1969)

Species	Pollution Index
Ankistrodesmus falcatus	3
Arthrospira jenneri	2
Chlorella vulgaris	2
Cyclotella meneghiniana	2
Euglena gracilis	1
Euglena viridis	6
Gomphonema parvulum	1
Melosira varians	2
Navicula cryptocephala	1
Nitzschia acicularis	1
Nitzschia palea	5
Oscillatoria chlorina	2
Oscillatoria limosa	4
Oscillatoria princeps	1
Oscillatoria putrida	1
Oscillatoria tenuis	4
Pandorina morum	3
Scenedesmus quadricauda	4
Stigeoclonium tenue	3
Synedra ulna	3

extremely tolerant forms. Palmer based the index numbers on occurrence records and/or where emphasized by the authors as being especially tolerant of organic pollution.

In analyzing a water sample, any of the 20 genera or species of algae present in concentrations of 50 per milliliter or more are recorded. The pollution index numbers of the algae present are totaled, providing a genus score and a species score. Palmer determined that a score of 20 or more for either index can be taken as evidence of high organic pollution, while a score of 15 to 19 is taken as probable evidence of high organic pollution. Lower figures suggest that the organic pollution of the sample is not high, that the sample is not representative, or that some substance or factor interfering with algal persistence is present and active.

SPECIES DIVERSITY AND ABUNDANCE INDICES

"Information content" of biological samples is being used commonly by biologists as a measure of diversity. Diversity in this connection means the degree of uncertainty attached to the specific identity of any randomly selected individual. The greater the number of taxa and the more equal their proportions, the greater the uncertainty, and hence, the diversity (Pielou 1966). There are several methods of measuring diversity, e.g., the formulas given by Brillouin (1962) and Shannon and Weaver (1963). The method which is appropriate depends on the type of biological sample on hand.

Pielou (1966) classifies the types of biological samples and gives the measure of diversity appropriate for each type. The Survey phytoplankton samples are what she classifies as larger samples (collections in Pielou's terminology) from which random subsamples can be drawn. According to Pielou, the average diversity per individual (H) for these types of samples can be estimated from the Shannon-Wiener formula (Shannon and Weaver 1963):

$$H = -\sum_{i=1}^{S} P_i \log_x P_i$$

where P is the proportion of the ith taxon in the sample, which is calculated from n_i/N; n_i is the number of individuals per milliliter of the ith taxon; N is the total number of individuals per ml; and S is the total number of taxa. However, Basharin (1959) and Pielou (1966) have pointed out that H calculated from the subsample is a biased estimator of the sample H, and if this bias is to be accounted for, we must know the total number of taxa present in the sample since the magnitude of this bias depends on it.

Pielou (1966) suggests that if the number of taxa in the subsample falls only slightly short of the number in the larger sample, no appreciable error will result in considering S, estimated from the subsample, as being equal to the sample value. Even though considerable effort was made to find and identify all taxa, the Survey samples undoubtedly contain a fair number of rare phytoplankton taxa which were not encountered.

In the Shannon-Wiener formula, an increase in the number of taxa and/or an increase in the evenness of the distribution of individuals among taxa will increase the average diversity per individual from its minimal value of zero. Sager and Hasler (1969) found that the richness of taxa was of minor importance in determination of average diversity per individual for phytoplankton and they concluded that phytoplankton taxa in excess of the 10 to 15 most abundant ones have little effect on H. This was verified by our own calculations. Our counts are in number per milliliter and since logarithms to the base 2 were used in our calculations, H is expressed in units of bits per individual. When individuals of a taxon were so rare that they were not counted, a value of 1/130 per milliliter or 0.008 per milliliter was used in the calculations since at least one individual of the taxon must have been present in the collection.

A Survey sample for a given lake represents a composite of all phytoplankton collected at different sampling sites on the lake during a given sampling period. Since the number of samples (M) making up a composite is a function of both the complexity of the lake sampled and its size, it should affect the richness-of-taxa component of the diversity of our phytoplankton collections. The maximum diversity (MaxH) (i.e., when the individuals are distributed among the taxa as evenly as possible) was estimated from $\log_2 S$ (Pielou 1966), while the minimum diversity (MinH), was estimated from the formula:

$$\text{MinH} = -\frac{S-1}{N}\log_2\frac{1}{N} - \frac{N-(S-1)}{N}\log_2\frac{N-(S-1)}{N}$$

given by Zand (1976). The total diversity (D) was calculated from HN (Pielou 1966). Also given in Appendix B are L (the mean number of individuals per taxa per milliliter) and K (the number of individuals per milliliter of the most abundant taxon in the sample).

The evenness component of diversity (J) was estimated from H/MaxH (Pielou 1966). Relative evenness (RJ) was calculated from the formula:

$$\text{RJ} = \frac{\text{H-MinH}}{\text{MaxH-MinH}}$$

given by Zand (1976). Zand suggests that RJ be used as a substitute for both J and the redundancy expression given by Wilhm and Dorris (1968). As pointed out by Zand, the redundancy expression given by Wilhm and Dorris does not properly express what it is intended to show, i.e., the position of H in the range between MaxH and MinH. RJ may range from 0 to 1; being 1 for the most even samples and 0 for the least even samples.

Zand (1976) suggests that diversity indices be expressed in units of "sits", i.e., in logarithms to base S (where S is the total number of taxa in the sample) instead of in "bits", i.e., in logarithms to base 2. Zand points out that the diversity index in sits per individual is a normalized number ranging from 1 for the most evenly distributed samples to 0 for the least evenly distributed samples. Also, it can be used to compare different samples, independent of the number of taxa in each. The diversity in bits per

individual should not be used in direct comparisons involving various samples which have different numbers of taxa. Since MaxH equals log S, the expression in sits is equal to $\log_S S$, or 1. Therefore diversity in sits per individual is numerically equivalent to J, the evenness component for the Shannon-Wiener formula.

SPECIES OCCURRENCE AND ABUNDANCE

The alphabetic phytoplankton species list for each lake, presented in Appendix B, gives the concentrations of individual species by sampling date. Concentrations are in cells, colonies, or filaments (CEL, COL, FIL) per milliliter. An "X" after a species name indicates that the species identified in the preliminary examination was in such a low concentration that it did not appear in the count. A blank space indicates that the organism was not found in the sample collected on that date. Column S is used to designate the examiner's subjective opinion of the five dominant taxa in a sample, based upon relative size and concentration of the organism. The percent column (%C) presents, by abundance, the percentage composition of each taxon.

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APPENDIX A

PHYTOPLANKTON SPECIES LIST FOR THE STATE OF LOUISIANA

Achnanthes lanceolata
Achnanthes microcephala
Actinastrum hantzschia
Amphora sp.
Anabaena circinalis ?
Anabaena planctonica
Anabaena spiroides
Anabaenopsis circularis
Anabaenopsis elenkinii
Anabaenopsis philippinensis
Anabaenopsis raciborskii
Ankistrodesmus ? braunii
Ankistrodesmus falcatus
Aphanizomenon flos-aquae
Aphanocapsa sp.
Aphanothece clathrata
Aphanothece elachista
Aphanothece nidulans
Arthrodesmus sp.
Arthrospira sp.
Asterionella formosa
Asterionella formosa
v. *gracillima*
Asterococcus ? sp.
Attheya sp.
Binuclearia ? tarana
Binuclearia eriensis
Botryococcus braunii
Carteria cordiformis
Centritractus sp.
Ceratium hirundinella
Ceratium hirundinella
f. *brachyceras*
Ceratium hirundinella
f. *furcoides*
Chlamydomonas globosa
Chlorella sp.
Chlorogonium elongatum
Chlorogonium euchlorum
Chroococcus dispersus
Chrysococcus ruferscens
Closteridium ? sp.
Closteriopsis sp.
Closterium setaceum
Cocconeis placentula
Coelastrum cambricum
v. *intermedium*
Coelastrum sphaericum
Coelosphaerium naegelianum
Coelosphaerium pallidum
Cosmarium clepsydra
v. *nanum*
Crucigenia apiculata
Crucigenia crucifera
Crucigenia fenestrata
Crucigenia quadrata
Crucigenia tetrapedia
Crucigenia truncata
Cryptomonas erosa
Cryptomonas ovata
Cryptomonas reflexa
Cyclotella meneghiniana
Cyclotella stelligera
Cylindrospermum ? sp.
Cymatopleura elliptica
Cymbella affinis
Cymbella turgida
Dactylococcopsis irregularis
Dichotomococcus sp.
Dictyosphaerium ehrenbergianum
Dictyosphaerium pulchellum
Dimorphococcus sp.
Dinobryon bavaricum
Dinobryon cylindricum
Dinobryon divergens ?
Dinobryon sertularia
Dinobryon sociale
Diploneis elliptica
Ducellieria chodatii
Echinosphaerella limnetica
Elakatothrix gelatinosa
Epithemia turgida
Euastrum denticulatum
Eudorina elegans
Euglena deses ?
Euglena elastica ?
Euglena gracilis
Euglena klebsii
Euglena oxyuris
Euglena oxyuris
v. *minor*
Eunotia curvata
Eunotia flexuosa
v. *eurycephala*
Eunotia pectinalis
Eunotia pectinalis
v. *minor* f. *impressa*
Eutonia pectinalis
v. *undulata*

Eutonia pectinalis
v. *ventricosa*
Eunotia valida
Franceia ovalis
Frustulia rhomboides
Glenodinium gymnodinium
Glenodinium gymnodinium
v. *biscutelliforme*
Glenodinium oculatum
Glenodinium penardiforme
Gloeoactinium limneticum
Gloeocystis sp.
Golenkinia paucispina
Golenkinia radiata
Gomphonema acuminatum
Gomphonema augur
Gomphonema olivaceum
Gomphonema sphaerophorum
Gomphosphaeria lacustris
v. *compacta*
Gonium pectorale
Gymnodinium albulum
Gymnodinium ordinatum
Gyrosigma sp.
Hormidium ? sp.
Hyalotheca dissiliens
Kephyrion rubri-claustri
v. *amphora*
Kirchneriella ? subsolitaria
Kirchneriella contorta
Iagerheimia subsalsa
Lepocinclis acuta
Lepocinclis ovum
Lyngbya circularis
Lyngbya circumcreta
Lyngbya lagerheimii
Lyngbya limnetica
Lyngbya subtilissima
Mallomonas acaroides
Mallomonas caudata ?
Melosira distans
Melosira granulata
Melosira granulata
v. *angustissima*
Melosira granulata
v. *angustissima* f. *spiralis*
Melosira italica
Melosira varians
Meridion ? sp.
Merismopedia glauca
Merismopedia minima
Merismopedia punctata
Merismopedia tenuissima
Mesostigma viridis
Micractinium pusillum
Microcystis aeruginosa
Microcystis glauca
Microcystis incerta
Mougeotia sp.
Navicula capitata
Navicula capitata
v. *luneburgensis*
Navicula cascadensis
Navicula gastrum
Nephrocytium sp.
Nitzschia actinastroides
Nitzschia capitata
Nitzschia filiformis
Nitzschia holsatica
Nitzschia palea
Ochromonas ? sp.
Onychonema uncinatum
Ophiocytium capitatum
Ophiocytium captiatum
v. *longecornutum*
Oscillatoria geminata
Oscillatoria limnetica
Oscillatoria ornata
Oscillatoria subtilissima
Oscillatoria tenuis
Pandorina morum
Pandorina protuberans
Pediastrum bicaudata
Pediastrum bicaudata
v. *longecornutum*
Pediastrum duplex
Pediastrum duplex
v. *clathratum*
Pediastrum duplex
v. *gracilimum*
Pediastrum duplex
v. *reticulatum*
Pediastrum simplex
Pediastrum simplex
v. *duodenarium*
Pediastrum tetras
Pediastrum tetras
v. *tetraodon*
Peridinium inconspicuum
Peridinium penardiforme
Peridinium pusillum
Peridinium quadridens

Peridinium umbonatum
Peridinium wisconsinense
Phacus acuminatus
Phacus acuminatus
v. *triquetra ?*
Phacus anomalus
Phacus caudatus
Phacus curvicauda
Phacus glaber
Phacus helikoides
Phacus longicauda
Phacus megalopsis
Phacus nordstedtii
Phacus orbicularis ?
Phacus pleuronectes
Phacus pseudonordstedtii
Phacus pyrum
Phacus suecicus
Phacus tortus
Phormidium mucicola
Pinnularia abaujensis
Pinnularia braunii
v. *amphicephala*
Pithophora oedogonia
Pleodorina sp.
Polyedriopsis spinulosa
Pteromonas angulosa
Quadrigula sp.
Raphidiopsis curvata
Rhizosolenia eriensis
Rhodomonas ? sp.
Scenedesmus abundans
Scenedesmus acuminatus
Scenedesmus arcuatus
Scenedesmus arcuatus
v. *platydisca*
Scenedesmus bicaudatus
Scenedesmus bijuga
Scenedesmus bijuga
v. *alternans*
Scenedesmus brasiliensis
Scenedesmus denticulatus
Scenedesmus denticulatus
v. *linearis*
Scenedesmus dimorphus
Scenedesmus granulatus
Scenedesmus intermedius
Scenedesmus intermedius
v. *bicaudatus*
Scenedesmus obliquus
Scenedesmus opoliensis
Scenedesmus perforatus
Scenedesmus protuberans
Scenedesmus quadricauda
Schizochlamys compacta ?
Schroederia setigera
Selenastrum westii
Spermatozoopsis exultans
Sphaerocystis schroeteri
Spirulina major
Spondylosium planum
Staurastrum arctiscon
Staurastrum depressiceps
v. *planiceps*
Staurastrum leptocladum
v. *subinsigne*
Stephanodiscus astraea
Stephanodiscus niagarae
Surirella angustata
Surirella linearis
Surirella linearis
v. *constricta*
Surirella tenera ?
Synedra acus
Synedra delicatissima ?
Synedra radians ?
Synedra rumpens
Synedra ulna
Synedra ulna
v. *danica*
Synura sp.
Tabellaria fenestrata
Tetraedron arthrodesmiforme
v. *contorta*
Tetraedron caudatum
Tetraedron caudatum
v. *longecornutum*
Tetraedron constrictum
Tetraedron cruciatum
Tetraedron gracile
Tetraedron lobulatum
Tetraedron minimum
Tetraedron minimum
v. *scrobiculatum*
Tetraedron muticum
Tetraedron pentaedricum
Tetraedron regulare
Tetraedron regulare
v. *incus*
Tetraedron regulare
v. *torsum ?*
Tetraedron trigonum

Tetraedron trigonum
v. *gracile*
Tetraedron tumidulum
Tetrallantos lagerheimii
Tetrastrum heteracanthum
Tetrastrum staurogeniaeforme
Tolypothrix sp.
Trachelomonas armata
v. *steinii*
Trachelomonas bulla
Trachelomonas dubia
Trachelomonas ensifera
Trachelomonas fluviatilis
Trachelomonas girardiana ?
Trachelomonas globularis ?
Trachelomonas hispida
Trachelomonas hispida
v. *coronata*
Trachelomonas hispida
v. *punctata*
Trachelomonas intermedia
Trachelomonas lacustris
Trachelomonas longicauda
Trachelomonas oblonga
v. *australica ?*
Trachelomonas pulchella
Trachelomonas pulcherrima
Trachelomonas rotundata
Trachelomonas scabra
Trachelomonas schauinslandii
Trachelomonas similis
Trachelomonas stokesii
Trachelomonas urceolata
Trachelomonas verrucosa
v. *zmiewika*
Trachelomonas volgensis
Trachelomonas volvocina
Trachelomonas volvocina
v. *compressa ?*
Trachelomonas volvocina
v. *deriphora*
Trachelomonas volvocina
v. *punctata ?*
Treubaria setigerum
Treubaria triappendiculata
Trochiscia ? granulata
Ulothrix sp.
Woloszynskia ? reticulata

APPENDIX B. SUMMARY OF PHYTOPLANKTON DATA

This appendix was generated by computer. Because it was only possible to use upper case letters in the printout, all scientific names are printed in upper case and are not italicized.

The alphabetic phytoplankton lists include taxa without species names (e.g., EUNOTIA, EUNOTIA #1, FLAGELLATE, FLAGELLATES, MICROCYSTIS INCERTA ?, CHLOROPHYTAN COCCOID CELLED COLONY). When species determinations were not possible, symbols or descriptive phrases were used to separate taxa for enumeration purposes. Each name on a list, however, represents a unique species different from any other name on the same list, unless otherwise noted, for counting purposes.

Numbers were used to separate unidentified species of the same genus. A generic name listed alone is also a unique species. A question mark (?) is placed immediately after the portion of a name which was assigned with uncertainty. Numbered, questioned, or otherwise designated taxa were established on a lake-by-lake basis; therefore NAVICULA #2 from lake A cannot be compared to NAVICULA #2 from lake B. Pluralized categories (e.g., FLAGELLATES, CENTRIC DIATOMS, SPP.) were used for counting purposes when taxa could not be properly differentiated on the counting chamber.

ERRATA

Minimum and evenness are misspelled in the computer printout of the species diversity and abundance indices data.

LAKE NAME: AMACOCO
STORET NUMBER: 2201

NYGAARD TROPHIC STATE INDICES

DATE	03 20 74	05 30 74	11 08 74
MYXOPHYCEAN	02/0 E	4.00 E	5.00 E
CHLOROPHYCEAN	10/0 E	6.00 E	12.0 E
EUGLENOPHYTE	0.25 E	0.30 E	0.47 E
DIATOM	0.67 E	0.67 E	0.50 E
COMPOUND	17/0 E	17.0 E	29.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 20 74	05 30 74	11 08 74
GENUS	14	13	10
SPECIES	03	03	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

		DATE	03 20 74	05 30 74	11 08 74
AVERAGE DIVERSITY	H		3.17	3.48	3.24
NUMBER OF TAXA	S		29.00	33.00	52.00
NUMBER OF SAMPLES COMPOSITED	M		2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH		4.86	5.04	5.70
MINIMUM DIVERSITY	MINH		0.06	0.09	0.21
TOTAL DIVERSITY	D		20725.46	17756.72	10356.28
TOTAL NUMBER OF INDIVIDUALS/ML	N		6538.00	5132.00	3197.00
EVENESS COMPONENT	J		0.69	0.69	0.57
RELATIVE EVENESS	RJ		0.65	0.69	0.56
MEAN NUMBER OF INDIVIDUALS/TAXA	L		225.45	155.52	61.48
NUMBER/ML OF MOST ABUNDANT TAXON	K		2270.00	1554.00	803.00

LAKE NAME: ANACUCO
STORET NUMBER: 2201

CONTINUED

TAXA	FORM	08 20 74 %S	08 20 74 %C	08 20 74 ALGAL UNITS PER ML	09 30 74 %S	09 30 74 %C	09 30 74 ALGAL UNITS PER ML	11 06 74 %S	11 06 74 %C	11 06 74 ALGAL UNITS PER ML
AMPHORA	CEL									X
ANABAENA	FIL									X
ANKISTRODESMUS	CEL									X
ANKISTRODESMUS FALCATUS	CEL	83	34.21	2270	9	9.59	283	45	6.38	203
APHANOTHECE CLATHRATA	COL						X			
ARTHRODESMUS	CEL									X
ASTERIONELLA FORMOSA	CEL				83	30.38	1554			
ASTERIONELLA FORMOSA V. GRACILLIMA	CEL		1.71	108						
ATTHEYA	CEL								3.21	101
FINUCLEARIA ? TATRANA	FIL									X
FINUCLEARIA ERIENSIS	FIL					1.61	94			
CENTRIC DIATOM #1	CEL							14	9.51	304
CHLAMYDOMONAS	CEL		3.31	216					1.61	51
CHLOROPHYTAN COCCOID CELLED COLONY	COL					0.91	47			
CHRYSOPHYTAN FLAGELLATE	CEL				X					
COSMARIUM #1	CEL						X			
CRUCIGENIA QUADRATA	COL			X					4.81	152
CRUCIGENIA TETRAPEDIA	COL	15	5.06	324		3.71	188		1.61	51
CRYPTOMONAS	CEL				15	6.45	335	11	11.11	355
CRYPTOMONAS EROSA	CEL	8	2.53	162						
CYCLOTELLA STELLIGERA	CEL	8	2.53	162	13	7.38	377			
CYMBELLA	CEL									X
DACTYLOCOCCOPSIS	CEL									X
DICTYOSPHAERIUM	COL									X
DINOBRYON	CEL									X
DINOBRYON BAVARICUM	CEL									X
DINOBRYON SOCIALE	CEL			X						
DINOFLAGELLATE CYST	CEL					0.91	47			
EUCLENA	CEL	8	0.84	54						
EUGLENA #1	CEL						X			X
EUGLENA #2	CEL									X
EUGLENA ACUS	CEL						X			
EUGLENA GRACILIS	CEL									X
EUNOTIA PECTINALIS	CEL						X			
FLAGELLATE #1	CEL			X				13	27.31	863
FLAGELLATE #9	CEL					2.71	141			X
FLAGELLATES	CEL	14	15.71	1027						
GLENODINIUM GYMNODINIUM	CEL									X
GLENODINIUM OCULATUM	CEL								1.61	51
GOLENKINIA PAUCISPINA	CEL						X			
GOLENKINIA RADIATA	CEL		0.84	54						
GOMPHONEMA	CEL									X
KIRCHNERIELLA	CEL			X						
LAGERHEIMIA	CEL					0.91	47			
LEPOCINCLIS ACUTA	CEL						X			
LUNATE CELL	CEL		1.71	108						
MALLOMONAS ?	CEL					1.61	94			
MELOSIRA DISTANS	CEL	12	13.21	865	12	13.81	706			
MELOSIRA ITALICA	CEL						X			X
MERISMOPEDIA TENUISSIMA	COL			X	14	10.11	518		6.31	203
MESOTAENIUM	CEL									X
MICRACTINIUM	COL			X						
MICROCYSTIS AERUGINOSA	COL									X
MICROCYSTIS INCERTA	COL	13	8.31	540		5.51	283			
MOUGEOTIA	FIL		1.71	108			X			X
NITZSCHIA	CEL	3	3.31	216		1.61	94			
NITZSCHIA #1	CEL						X			X
NITZSCHIA #2	CEL									X
OOCYSTIS	CEL									X
HEMIDINIUM CAPITATUM V. LONGECORNUTUM	CEL									X
OSCILLATORIA	FIL					1.61	94			X
PALMELLOID CELLS	CEL									X
PERIDINIUM INCONSPICUUM	CEL					1.61	94			X
PERIDINIUM UMBONATUM	CEL		0.84	54						
PERIDINIUM WISCONSINENSE	CEL						X			
PHACUS	CEL									X
PHACUS HELIKOIDES	CEL									X
PHACUS LONGICAUDA	CEL									X
RHIZOSOLENIA	CEL					0.91	47			
SCENEDESMUS BIJUGA	COL						X			
SCENEDESMUS DENTICULATUS	COL			X						
SCENEDESMUS DENTICULATUS V. LINEARIS	COL								1.61	51
STEPHANODISCUS	CEL								1.61	51
SYNEDRA	CEL		0.84	54		0.91	47			
SYNEDRA #1	CEL									X
SYNEDRA #2	CEL									X

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LAKE NAME: ANACOCO
STORET NUMBER: 2201

CONTINUED

TAXA	FORM	03 20 74 BS	03 20 74 XC	03 20 74 ALGAL UNITS PER ML	05 30 74 BS	05 30 74 XC	05 30 74 ALGAL UNITS PER ML	11 08 74 BS	11 08 74 XC	11 08 74 ALGAL UNITS PER ML
SYNEDRA ULNA	CEL					X				
TABELLARIA FENESTRATA	CEL							12	19.0	609
TETRAEDRON CAUDATUM	CEL		0.8	54					3.2	101
TETRAEDRON MINIMUM	CEL		1.7	108						X
TETRAEDRON MUTICUM	CEL		0.8	54		0.9	47		1.6	51
TETRAEDRON TRIGONUM V. GRACILE	CEL									
TETRAEDRON TUMIDULUM	CEL									X
TRACHELOMONAS	CEL									X
TRACHELOMONAS #1	CEL			X						
TRACHELOMONAS BULLA	CEL									X
TRACHELOMONAS UNCEDLATA	CEL									X
TOTAL				6538			5132			3197

LAKE NAME: BRUIN
STORET NUMBER: 2202

NYGAARD TROPHIC STATE INDICES

DATE	03 19 74	05 30 74	11 11 74
MYXOPHYCEAN	0470 E	3.67 E	1.67 E
CHLOROPHYCEAN	0770 E	4.67 E	3.67 E
EUGLENOPHYTE	0.09 ?	0.08 ?	0.19 ?
DIATOM	0.25 ?	1.17 E	0.75 E
COMPOUND	1370 E	11.3 E	7.33 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 19 74	05 30 74	11 11 74
GENUS	19	25	24
SPECIES	04	06	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 19 74	05 30 74	11 11 74
AVERAGE DIVERSITY	H	3.26	2.43	3.40
NUMBER OF TAXA	S	23.00	52.00	38.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.52	5.70	5.25
MINIMUM DIVERSITY	MINH	0.07	0.02	0.04
TOTAL DIVERSITY	D	13802.84	127249.38	46620.80
TOTAL NUMBER OF INDIVIDUALS/ML	N	4234.00	52366.00	13712.00
EVENESS COMPONENT	J	0.72	0.43	0.65
RELATIVE EVENESS	RJ	0.72	0.43	0.65
MEAN NUMBER OF INDIVIDUALS/TAXA	L	184.09	1007.04	360.84
NUMBER/ML OF MOST ABUNDANT TAXON	K	1189.00	24829.00	4945.00

LAKE NAME: KRUIN
STORET NUMBER: 2252

CONTINUED

TAXA	FORM	03 19 74 BS	03 19 74 %C	03 19 74 ALGAL UNITS PER ML	05 30 74 BS	05 30 74 %C	05 30 74 ALGAL UNITS PER ML	11 11 74 BS	11 11 74 %C	11 11 74 ALGAL UNITS PER ML
ACHNANTHES LANCEOLATA	CEL			X						
ANABAENOPSIS	FIL				121	7.41	3882		0.71	98
ANABAENOPSIS KACISJORSKII	FIL						X			
ANKISTRODESMUS ?	CEL	451	7.01	297						
ANKISTRODESMUS FALCATUS	CEL								3.91	539
CENTRIC DIATOMS	CEL					2.41	1245			
CERATIUM HIRUNDINELLA										
F. BRACHYCERAS	CEL									X
CHLAMYDOMONAS	CEL					0.71	366			
CHLAMYDOMONAS GLOBOSA	CEL								0.71	98
CHLOROGONIUM ELONGATUM	CEL						X			
CHLOROGONIUM EUCHLORUM	CEL								1.11	147
CHROOCOCCUS #1	COL						X			
CHROOCOCCUS #2	COL					0.31	146			
CHLASTRUM LAMERICUM										
V. INTERMEDIUM	COL					0.11	73			
COSMARIUM	CEL					0.11	73			
COSMARIUM #1	CEL								0.41	49
COSMARIUM #2	CEL									X
COSMARIUM #3	CEL								0.41	49
CRUCIGENIA APICULATA	COL						X			
CRUCIGENIA QUADRATA	COL						X			
CRYPTOMONAS EROSA	CEL	121	17.51	743		0.41	220	121	5.01	685
CRYPTOMONAS REFLEXA	CEL							111	2.11	294
CYCLOTELLA STELLIGERA	CEL						X	131	4.31	588
DACTYLOCOCCOPSIS	CEL	131	17.31	520	131	47.41	24829			
DACTYLOCOCCOPSIS IRREGULARIS	CEL							141	36.11	4945
DICTYOSPHAERIUM PUECHELLUM	COL					0.11	73			X
EUGLENA	CEL			X		0.11	73			X
EUGLENA ACUS	CEL						X			
EUNOTIA	CEL						X			
FLAGELLATE	CEL			X						
FLAGELLATE #1	CEL		7.01	297		1.81	952		0.11	832
GLENODINIUM GYMNODINIUM	CEL						X			
GLENODINIUM GYMNODINIUM										
V. BISCUTELLIFORME	CEL								0.41	49
GLENODINIUM OCULATUM	CEL			X						
GOLENKINIA RADIATA	CEL						X			
KIRCHNERIELLA	CEL						X			
LYNGBYA LAGERHEIMII	FIL									X
LYNGBYA SUBTILISSIMA	FIL					1.11	586			
MALLOMONAS ACAROIDES	CEL			X					3.41	196
MELOSIRA DISTANS	CEL				151	3.21	1685		2.11	294
MELOSIRA GRANULATA	CEL						X		0.71	98
MELOSIRA GRANULATA										
V. ANGUSTISSIMA	CEL					0.31	146			
MELOSIRA GRANULATA										
V. ANGUSTISSIMA F. SPIRALIS	CEL					0.31	146			
MELOSIRA ITALICA	CEL	131	28.11	3189						
MERISMOPEDIA GLAUCA	COL									
MERISMOPEDIA MINIMA	COL						X		1.81	245
MERISMOPEDIA TENUISSIMA	COL		1.21	74						
MESOSTIGMA VIRIDIS	CEL					0.31	146			
MICRACTINIUM PUSILLUM	COL	141	7.01	297						
MICROCYSTIS INCERTA	COL		3.51	149		0.31	146			
NAVICULA	CEL									
NAVICULA GASTRUM	CEL						X			
NITZSCHIA	CEL		1.71	74						X
NITZSCHIA #1	CEL								1.41	196
NITZSCHIA #2	CEL								3.91	539
NITZSCHIA ACICULARIS ?	CEL									
NITZSCHIA ACTINASTROIDES	CEL						X			
NITZSCHIA PALEA	CEL						X			
NITZSCHIA SPP.	CEL				111	26.31	13272			
OSCILLATORIA	FIL						X	151	17.91	2448
OSCILLATORIA #1	FIL		1.71	74						
OSCILLATORIA SUBTILISSIMA	FIL				161	4.31	2271			
PANDORINA	COL						X			
PEDIASTRUM DUPLEX										
V. CLATHRATUM	COL									X
PEDIASTRUM DUPLEX										
V. RETICULATUM	COL						X			
PEDIASTRUM SIMPLEX	COL			X			X		0.41	49
PERIDINIUM URBONATUM	CEL									X
PHACUS CAUDATUS	CEL								0.71	98
PHACUS MEGALOPSIS	CEL									X
RAPHIDIOPSIS	FIL					0.61	293			
SCENEDESMUS ABUNDANS	COL		1.71	74						
SCENEDESMUS BIJUGA	COL									
SCENEDESMUS BIJUGA										
V. ALTERNANS	COL									X

LAKE NAME: BRUIN
STORET NUMBER: 2202

CONTINUED

TAXA	FORM	03 19 74 US	03 19 74 %C	03 19 74 ALGAL UNITS PER ML	05 30 74 US	05 30 74 %C	05 30 74 ALGAL UNITS PER ML	11 11 74 US	11 11 74 %C	11 11 74 ALGAL UNITS PER ML
SCENEDESMUS DIMORPHUS	COL		1.7%	74			X		1.1%	147
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL						X			
SCENEDESMUS QUADRICAUDA	COL		1.7%	74					1.1%	147
SCENEDESMUS SPP.	COL					0.6%	293			
SCHROEDERIA SETIGERA	CEL					0.4%	220		0.7%	98
SPONDYLOSIUM PLANUM	CEL						X			
STAURASTRUM	CEL						X			
STELLATE DIATOM	CEL			X						
STEPHANODISCUS	CEL						X			
SYNEDRA	CEL		3.5%	149					2.9%	392
SYNEDRA #1	CEL			X						
SYNEDRA RADIANS ?	CEL					0.7%	366			
TETRAEDRON MINIMUM	CEL								2.5%	343
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					0.7%	366			
TETRAEDRON PENTAEDRICUM	CEL								0.4%	49
TETRAEDRON REGULARE V. INCUS	CEL						X			
TETRAEDRON TRIGONUM	CEL		3.5%	149						
TREUBARIA	CEL						X			
TOTAL				4234			52366			13732

LAKE NAME: BISTENLAU
STORET NUMBER: 2203

NYGAARD TROPHIC STATE INDICES

DATE	03 21 74	05 31 74	11 11 74
MYXOPHYCEAN	03/C E	7.00 E	1.00 E
CHLOROPHYCEAN	06/C E	13.0 E	5.00 E
EUGLENOPHYTE	0.44 E	0.35 E	0.83 E
DIATOM	0.60 E	1.50 E	0.57 E
COMPOUND	16/C E	33.0 E	15.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 21 74	05 31 74	11 11 74
GENUS	15	22	01
SPECIES	04	03	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 21 74	05 31 74	11 11 74
AVERAGE DIVERSITY	H	3.58	4.08	2.33
NUMBER OF TAXA	S	32.00	50.00	30.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.00	5.64	4.91
MINUMUM DIVERSITY	MINH	0.12	0.15	0.29
TOTAL DIVERSITY	D	12386.80	17564.40	2740.38
TOTAL NUMBER OF INDIVIDUALS/ML	N	3460.00	4305.00	1176.00
EVENESS COMPONENT	J	0.72	0.72	0.47
RELATIVE EVENESS	RJ	0.71	0.72	0.45
MEAN NUMBER OF INDIVIDUALS/TAXA	L	108.13	86.10	39.20
NUMBER/ML OF MOST ABUNDANT TAXON	K	649.00	603.00	560.00

LAKE NAME: BISTENLAU
STORET NUMBER: 2203

CONTINUED

TAXA	FORM	03 21 74			05 31 74			11 11 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACHNANTHES	CEL			X						
ACTINASTRUM	CEL						X			
ACTINASTRUM HANTZSCHII	COL					1.0I	43			
ANABAENA	FIL			X		1.0I	43			
ANABAENA #1	FIL						X			
ANKISTRODESMUS ?	CEL		1.6I	54						X
ANKISTRODESMUS FALCATUS	CEL					2.0I	86			X
ATTHEYA	CEL					2.0I	86			
CENTRIC DIATOM	CEL								4.0I	56
CENTRIC DIATOM #1	CEL		1.6I	54		4.0I	172			
CENTRIC DIATOM #2	CEL					3.0I	129			
CHLAMYDOMONAS	CEL									X
CLOSTERIUM ?	CEL						X			
COCCOID CELL	CEL			X						
COCCOID CELLED COLONY	COL									X
COCCONEIS	CEL									X
CRUCIGENIA TETRAPEDIA	COL		6.2I	216						
CRYPTOMONAS	CEL		4.7I	162						
CRYPTOMONAS EROSA	CEL				11	10.0I	431	1	21.4I	252
CRYPTOMONAS REFLEXA	CEL	12I	4.7I	162						
CYMBELLA AFFINIS	CEL			X						
DACTYLOCOCCOPSIS IRREGULARIS	CEL	14	12.5I	433		5.0I	215			
DINOBRYON	CEL								2.4I	28
DINOBRYON BAVARICUM	CEL			X		2.0I	86			
DINOBRYON SERTULARIA	CEL						X			
DUCELLIERIA CHODATII	CEL			X						
EUDORINA ELEGANS	CEL			X			X			
EUGLENA	CEL			X		1.0I	43			X
EUGLENA ACUS	CEL					1.0I	43			
EUNOTIA	CEL			X						
FLAGELLATE #1	CEL				13	13.0I	560			
FLAGELLATE #2	CEL	15	17.2I	595	13	14.0I	603			
FLAGELLATES	CEL							12	47.6I	560
FRUSTULIA	CEL									X
GLENODINIUM OCULATUM	CEL		3.1I	108	1	2.0I	86			
GOLENKINIA	CEL						X			
GOMPHONEMA	CEL									X
GYMNODINIUM ? ORDINATUM	CEL						X			
GYMNODINIUM ALBULUM	CEL								2.4I	28
KIRCHNERIELLA ?	CEL						X			
LEPOCINCLIS	CEL		3.1I	108						
LEPOCINCLIS OVUM	CEL			X						
LYNGBYA	FIL					4.0I	172			
LYNGBYA LIMNETICA ?	FIL						X			
MALLOMONAS CAUDATA ?	CEL		1.6I	54						
MELOSIRA #4	CEL									X
MELOSIRA DISTANS	CEL	11	18.8I	649			X			
MELOSIRA GRANULATA	CEL	13	6.2I	216	14	8.0I	345			X
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL				12	12.0I	517	15	11.9I	140
MERISMOPEDIA PUNCTATA	COL						X			
NITZSCHIA	CEL									X
NITZSCHIA #1	CEL									
NITZSCHIA #2	CEL			X						
OOCYSTIS	CEL					3.0I	129			
OPHIOCYTIUM CAPITATUM	CEL			X						
OSCILLATORIA	FIL						X			
OSCILLATORIA LIMNETICA	FIL							14	2.4I	28
PANDORINA MORUM	COL		1.6I	54		2.0I	86			
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X			
PENNATE DIATOM	CEL						X			
PENNATE DIATOMS	CEL						X			
PERIDINIUM INCONSPICUUM	CEL									X
PHACUS	CEL		1.6I	54			X		2.4I	28
PHACUS CURVICAUDA ?	CEL									X
PHACUS GLABER	CEL						X			X
PHACUS MEGALOPSIS	CEL						X			
PHACUS NORDSTEDTII	CEL						X			
PINNULARIA	CEL									
PTEROMONAS ANGULOSA	CEL									X
SCENEDESMUS	CEL						X			
SCENEDESMUS DENTICULATUS V. LINEARIS	COL		4.7I	162						
SCENEDESMUS DIMORPHUS	COL									X
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL					1.0I	43			
SCENEDESMUS OPOLIENSIS	COL			X		1.0I	43			
SCENEDESMUS QUADRICAUDA	COL									X
SELENASTRUM WESTII	COL						X			
SPERMATOZOOPSIS	COL		1.6I	54						
STAURASTRUM	CEL						X			
	CEL					1.0I	43			
	CEL									X

LAKE NAME: BISTENEAU
STORET NUMBER: 2203

CONTINUED

TAXA	FORM	03 21 74			05 31 74			11 11 74		
		BS	%C	ALGAL UNITS PER ML	BS	%C	ALGAL UNITS PER ML	BS	%C	ALGAL UNITS PER ML
SYNEDRA	CEL				4.00		172			X
SYNEDRA #1	CEL	9.41		325						
SYNEDRA ULNA	CEL							2.41		28
TETRAEDRON MINIMUM										
V. SCROBICULATUM	CEL				1.00		43			
TETRAEDRON REGULARE	CEL				1.00		43			
TETRASTRUM HETERACANTHUM	COL				1.00		43			
TETRASTRUM STAUROGENIAEFORME	COL			X						
TRACHELOMONAS	CEL									X
TRACHELOMONAS ENSIFERA	CEL						X			
TRACHELOMONAS GIRARDIANA ?	CEL							2.41		28
TRACHELOMONAS HISPIDA	CEL						X			
TRACHELOMONAS URCEOLATA	CEL			X						
TOTAL				3460			4305			3176

LAKE NAME: BLACK BAYOU
STORET NUMBER: 2204

NYGAARD TROPHIC STATE INDICES

DATE	03 22 74	06 03 74	08 26 74	11 11 74
MYXOPHYCEAN	0470 E	1.33 E	1.71 E	1.00 E
CHLOROPHYCEAN	0270 E	4.00 E	3.57 E	1.00 E
EUGLENOPHYTE	0.67 E	0.37 E	0.24 E	1.25 E
DIATOM	0.50 E	0.33 E	0.67 E	0.29 ?
COMPOUND	1170 E	7.67 E	6.86 E	5.50 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 22 74	06 03 74	08 26 74	11 11 74
GENUS	10	09	19	05
SPECIES	03	06	07	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 22 74	06 03 74	08 26 74	11 11 74
AVERAGE DIVERSITY	H	2.63	2.80	3.99	2.21
NUMBER OF TAXA	S	18.00	39.00	73.00	22.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.17	5.29	6.19	4.46
MINIMUM DIVERSITY	MINH	0.09	0.05	0.14	0.40
TOTAL DIVERSITY	D	6432.98	30979.20	28185.36	1217.71
TOTAL NUMBER OF INDIVIDUALS/ML	N	7446.00	11064.00	7064.00	551.00
EVENESS COMPONENT	J	0.63	0.53	0.64	0.50
RELATIVE EVENESS	RJ	0.63	0.53	0.64	0.45
MEAN NUMBER OF INDIVIDUALS/TAXA	L	135.69	283.69	96.77	25.05
NUMBER/ML OF MOST ABUNDANT TAXON	K	611.00	4802.00	2037.00	220.00

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LAKE NAME: BLACK BAYOU
STORET NUMBER: 2274

CONTINUED

TAXA	FORM	03 22 74 BS	03 22 74 %	03 22 74 ALGAL UNITS PER ML	06 03 74 BS	06 03 74 %	06 03 74 ALGAL UNITS PER ML	08 26 74 BS	08 26 74 %	08 26 74 ALGAL UNITS PER ML	11 11 74 BS	11 11 74 %	11 11 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL					1.9%	209		0.6%	39			
ANABAENA	FIL					1.4%	157	3%	6.6%	463			
ANABAENA PLANCTONICA	FIL									X			
ANKISTRODESMUS FALCATUS	CEL		2.3%	56		5.7%	626		8.7%	618			X
APHANOTHECE	COL				12%	18.4%	2036						
APHANOTHECE ELACHISTA	COL									X			
ASTERIONELLA FORMOSA V. GRACILLIMA	CEL				11%	43.4%	4802		2.2%	154			
CENTRIC DIATOM	CEL							11%	28.4%	2007			
CENTRITRACTUS	CEL					X			1.1%	77			
CERATIUM HIRUNDINELLA	CEL									X			
CLOSTERIUM	CEL					1.4%	157						
CLOSTERIUM #1	CEL									X			
CLOSTERIUM #2	CEL					X				X			
CLOSTERIUM SPP.	CEL								1.1%	77			
COCCONEIS	CEL					X							
COELASTRUM CAMBRICUM	COL									X			
COELASTRUM SPHAERICUM	COL									X			
CRUCIGENIA APICULATA	COL									X			
CRUCIGENIA CRUCIFERA	COL					X							
CRUCIGENIA FENESTRATA	COL					0.9%	52						
CRUCIGENIA QUADRATA	COL					0.9%	104						
CRUCIGENIA TETRAPEDIA	COL									X			
CRYPTOMONAS	CEL					0.9%	104						
CRYPTOMONAS EROSA	CEL	11%	20.4%	503							11%	39.9%	220
CRYPTOMONAS OVATA	CEL									X			
CRYPTOMONAS SPP.	CEL							15%	5.5%	386			
CYANOPHYTAN FILAMENT	COL									X			
CYCLOTELLA	CEL		2.3%	56									X
CYMBELLA TUMIDA	CEL												X
DACTYLOCOCCOPSIS IRREGULARIS	FIL	13%	25.0%	611							12%	26.7%	147
DICTYOSPHAERIUM PULCHELLUM	COL			X					1.1%	77			
DIMORPHOCOCCUS	COL									X			
DINOBRYON BAVARICUM	CEL					X							
DINOBRYON DIVERGENS ?	CEL					X							
DINOBRYON SOCIALE	CEL	12%	18.2%	445									
DIPLONEIS ELLIPTICA	CEL												X
EUASTRUM	CEL									X			
EUDORINA	CEL					X							
EUGLENA	CEL			X					2.2%	154			
EUGLENA #1	CEL										15%	6.7%	37
EUGLENA ACUS	CEL					X							X
EUGLENA DESES ?	CEL												
EUGLENA ELASTICA ?	CEL					X							
EUGLENA PLEBSII	CEL										13%	13.2%	73
EUNOTIA PECTINALIS	CEL									X			X
FLAGELLATE #1	CEL	14%	18.2%	445						X			
FLAGELLATES	CEL				14%	10.8%	1200		4.9%	347			
GOMPHOSPHAERIA LACUSTRIS V. COMPACTA	COL					X				X			
GYMNODINIUM	CEL									X			
KIRCHNERIELLA	CEL					3.3%	365		2.2%	154			
LEPOCINCLIS	CEL			X					1.1%	77			
LEPOCINCLIS OVUM ?	CEL												X
LYNGBYA	FIL							14%	8.7%	618			
MALLOMONAS ACAROIDES	CEL												X
MELOSIRA	CEL									X			
MELOSIRA #1	CEL										14%		X
MELOSIRA GRANULATA	CEL				15%	3.8%	418						X
MERISMOPEDIA MINIMA	COL								0.6%	39			
MERISMOPEDIA TENUISSIMA	COL					X							
MICROCYSTIS AERUGINOSA	COL									X			
MICROCYSTIS INCERTA	COL			X					3.3%	232			
MOUGEOTIA	FIL			X		X				X			
NAVICULA	CEL												X
ONYCHOMEMA UNCINATUM	CEL									X			
OOCYSTIS	CEL					0.9%	104			X			
OPHIOCYTIUM	CEL					0.5%	52						
OSCILLATORIA	FIL		9.1%	222					1.6%	116			
OSCILLATORIA #1	FIL									X			
OSCILLATORIA #2	FIL									X			
OSCILLATORIA #3	FIL											6.7%	37
OSCILLATORIA LIMNETICA	FIL			X									
PANDORINA MORUM	COL					X				X			
PEDIASTRUM BICAUDATA	COL									X			
PEDIASTRUM DUPLEX V. RETICULATUM	COL					X				X			
PEDIASTRUM TETRAS	COL									X			
PENNATE DIATOMS	CEL								2.2%	154			
PERIDINIUM	CEL					1.4%	157		1.1%	77			
PERIDINIUM INCONSPICUUM	CEL			X									
PERIDINIUM UMBONATUM	CEL								3.3%	232			
PHACUS #1	CEL					X			0.6%	39			

LAKE NAME: BLACK BAYOU
STORET NUMBER: 2204

CONTINUED

TAXA	FORM	03 22 74 BS	03 22 74 %	03 22 74 ALGAL UNITS PER ML	06 03 74 BS	06 03 74 %	06 03 74 ALGAL UNITS PER ML	08 26 74 BS	08 26 74 %	08 26 74 ALGAL UNITS PER ML	11 11 74 BS	11 11 74 %	11 11 74 ALGAL UNITS PER ML
PHACUS #2	CEL												
PHACUS CURVICAUDA	CEL					0.90	104						
PHACUS GLABER	CEL										348	6.78	37
PHACUS LONGICAUDA	CEL							X					
PHACUS MEGALOPSIS	CEL			X									
PHACUS PYRUM	CEL							X					
PHACUS SUECICUS	CEL							X					
POLYEDRIOPSIS SPINULOSA	CEL							X					
SCENEDESMUS ACUMINATUS	CEL							X					
SCENEDESMUS DENTICULATUS	COL								1.33	77			
SCENEDESMUS DIMORPHUS	COL							X					
SCENEDESMUS INTERMEDIUS	COL												X
SCENEDESMUS PERFORATUS	COL							X					
SCENEDESMUS PROTUBERANS	COL					X		X					
SCENEDESMUS QUADRICAUDA	COL								1.33	77			
SELENASTRUM	CEL							X					
SPERMATOZOPSIS	CEL								0.66	39			
STAURASTRUM	CEL												X
STAURASTRUM #1	CEL							X					
STAURASTRUM #2	CEL					X			1.33	77			X
STAURASTRUM ANCTISCON	CEL							X					
SYNEDRA	CEL	351	4.51	111									X
SYNEDRA ULNA	CEL			X	138	2.68	313						X
TABELLARIA FENESTRATA	CEL												X
TETRAEDRON GRACILE	CEL					X							
TETRAEDRON MINIMUM	CEL								0.66	39			
TETRAEDRON REGULARE	CEL					X			1.33	77			
TETRAEDRON REGULARE V. INCUS													
TETRASTRUM HETERACANTHUM	CEL								0.66	39			
TOLYPOTHRIX	COL								0.66	39			
TRACHELOMONAS ARMATA	CEL							X					
V. STEINII													
TRACHELOMONAS GLOBULARIS ?	CEL			X				X					
TRACHELOMONAS SPP.	CEL					0.90	104		2.73	193			
TRACHELOMONAS VOLVOCINA	CEL					X							
TREUBARIA	CEL					X							
ULOTHRIX	CEL							X					
*GLOSZYNSKIA ? RETICULATA	CEL							121	3.81	270			
TOTAL				2446			11064			7084			551

LAKE NAME: BUNDICKS
STORET NUMBER: 2205

NYGAARD TROPHIC STATE INDICES

DATE	03 20 74	05 30 74	11 12 74
MYXOPHYCEAN	4.00 E	2.67 E	5.00 E
CHLOROPHYCEAN	19.0 E	6.67 E	16.0 E
EUGLENOPHYTE	0.22 E	0.21 E	0.21 ?
DIATOM	1.00 E	0.30 ?	0.43 E
COMPOUND	31.0 E	12.3 E	24.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 20 74	05 30 74	11 12 74
GENUS	16	26	16
SPECIES	03	04	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 20 74	05 30 74	11 12 74
AVERAGE DIVERSITY	H	2.54	4.19	3.80
NUMBER OF TAXA	S	45.00	61.00	43.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.49	5.93	5.43
MINUMUM DIVERSITY	MINH	0.05	0.07	0.19
TOTAL DIVERSITY	D	32703.46	51013.25	11153.00
TOTAL NUMBER OF INDIVIDUALS/ML	N	12899.00	12175.00	2935.00
EVENESS COMPONENT	J	0.46	0.71	0.70
RELATIVE EVENESS	RJ	0.46	0.71	0.69
MEAN NUMBER OF INDIVIDUALS/TAXA	L	286.64	199.59	68.26
NUMBER/ML OF MOST ABUNDANT TAXON	K	7279.00	3223.00	533.00

LAKE NAME: BUNDICKS
STORET NUMBER: 2205

CONTINUED

TAXA	FORM	03 20 74 #S	03 20 74 %C	03 20 74 ALGAL UNITS PER ML	05 30 74 #S	05 30 74 %C	05 30 74 ALGAL UNITS PER ML	11 12 74 #S	11 12 74 %C	11 12 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL				1	1.01	223	1		
ANABAENA PLANCTONICA	FIL				1	0.81	99	1		
ANKISTRODESMUS	CEL	1		X	1		X	1	0.91	27
ANKISTRODESMUS FALCATUS	CEL	1	1.31	162	1			1		
APHANOCAPSA	COL	1	2.21	283	1			1	2.71	80
APHANOTHECE CLATHRATA	COL	1			1	0.81	74	1		
CENTRIC DIATOM	CEL	1	0.31	40	1			1		
CHLAMYDOMONAS	CEL	1	1.61	202	1			1		
CHLAMYDOMONAS #1	CEL	1			1	5.11	620	1		
CHLAMYDOMONAS CIENKOWSKII	CEL	1			1	0.81	99	1		
CHLAMYDOMONAS GLOBOSA	CEL	1			1	2.01	248	1		
CLOSTERIUM	CEL	1		X	1		X	1		X
COCCONEIS	CEL	1			1			1		X
COELASTRUM SPHAERICUM	COL	1			1			1		X
CRUCIGENIA APICULATA	COL	1	2.21	283	1			1		
CRUCIGENIA FENESTRATA	COL	1		X	1			1		
CRUCIGENIA TETRAPEDIA	COL	1		X	1	0.21	25	1	2.71	80
CRYPTOMONAS	CEL	1			12	5.71	694	1		
CRYPTOMONAS EROSA	CEL	1			1			1		X
CRYPTOMONAS OVATA	CEL	1			1			1		X
CRYPTOMONAS SPP.	CEL	12	8.11	1051	1			15	4.51	133
CYCLOTELLA	CEL	1			1	0.81	00099	1		
CYCLOTELLA MENEGHINIANA	CEL	1			1			12	12.7	373
DACTYLOCOCCOPSIS	CEL	1	1.31	162	1	2.61	322	13	18.2	533
DICHOTOMOCOCCUS	COL	1	2.21	283	1			1		
DICTYOSPHAERIUM EHRENBERGIANUM	COL	1		X	1			1		X
DICTYOSPHAERIUM PULCHELLUM	COL	1			1		X	1		
DINOBRYON BAVARICUM	CEL	1	0.31	40	1	0.41	50	1		
DINOFLAGELLATE	CEL	1		X	1			1	0.91	27
EUASTRUM DENTICULATUM	CEL	1			1		X	1		
EUGLENA	CEL	1		X	1	0.41	50	1		
EUGLENA ACUS	CEL	1			1		X	1		
FUNDIA	CEL	1			1			1		X
FLAGELLATE	CEL	1			1			1	3.61	107
FLAGELLATE #1	CEL	1	1.31	162	1	1.61	198	1		X
GLENODINIUM OCULATUM	CEL	1			1	0.41	50	1		
GLOEOACTINIUM LIMNETICUM	COL	1			1		X	1		
GOLENKINIA RADIATA	CEL	1			1	1.61	198	1		
GOMPHONEMA AUGUR	CEL	1			1			1		X
GONIUM PECTORALE	COL	1			1	0.41	50	1		
KEPHYRION RUBRI-CLAUSTRI		1			1			1		
V. APPHORA	CEL	1		X	1			1		
KIRCHNERIELLA	CEL	1	1.61	202	13	11.8	1438	1	15.9	320
MELOSIRA DISTANS	CEL	11	56.4	7279	1	4.11	496	1	6.41	187
MELOSIRA GRANULATA	CEL	1			11	26.5	3223	14	6.41	187
MELOSIRA GRANULATA		1			1			1		
V. ANGUSTISSIMA	CEL	13	11.6	1496	1			1		
MERISMOPEDIA	COL	1	0.31	40	1			1	1.81	53
MERISMOPEDIA MINIMA	COL	1		X	1			1		X
MERISMOPEDIA TENUISSIMA	COL	1			1	4.31	521	1		
MESOSTIGMA	CEL	1			1			1	0.91	27
NICRACTINIUM PUSILLUM	CEL	1	0.61	81	1			1		
MICROCYSTIS AERUGINOSA	COL	1			1		X	1		
MICROCYSTIS INCERTA	COL	1			15	4.51	545	1		
NAVICULA #1	CEL	1			1		X	1		
NAVICULA #2	CEL	1			1		X	1		
NAVICULA CAPITATA	CEL	1			1		X	1		
NITZSCHIA	CEL	1	1.91	243	1			1	2.71	80
NITZSCHIA #2	CEL	1		X	1	2.91	347	1		X
NITZSCHIA FILIFORMIS	CEL	1			1		X	1		
NITZSCHIA HOLSATICA	CEL	1			1	1.41	174	1		
OOCYSTIS	CEL	1			1			1	3.61	107
OPHIOCYTIUM	CEL	1		X	1			1		
OPHIOCYTIUM ?	CEL	1			1			1		X
OSCILLATORIA	FIL	1			1			1	0.91	27
OSCILLATORIA ?	FIL	1			14	3.71	446	1		
PANDORINA	COL	1			1			1		X
PEDIASTRUM BICAUDATA	COL	1			1			1		X
PEDIASTRUM DUPLEX		1			1			1		
V. CLATHRATUM	COL	1			1	0.21	25	1		
PEDIASTRUM TETRAS	COL	1		X	1			1		
PEDIASTRUM TETRAS		1			1			1		
V. TETRADON	COL	1		X	1		X	1		X
PENNATE DIATOM	CEL	1	0.61	81	1			1		
PENNATE DIATOM #1	CEL	1			1			1	2.71	80
PERIDINIUM INCONSPICUUM	CEL	1			1		X	1		
PHACUS	CEL	1		X	1			1		
PHACUS GLABER	CEL	1			1	0.21	25	1		
PINNULARIA	CEL	1			1			1		X
PTEROMONAS	CEL	1	0.61	81	1			1		
PTEROMONAS ANGULOSA	CEL	1		X	1	1.01	124	1		X
RAPHIDIOPSIS CURVATA	FIL	1			1	2.01	248	1		
SCENEDESMUS ARUNDANS	COL	1		X	1		X	1		
SCENEDESMUS BICAUDATUS	COL	1	0.61	81	1	0.21	25	1		X

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LAKE NAME: SUNDICPS
STORET NUMBER: 2295

CONTINUED

TAXA	FORM	13 20 74 IS	13 20 74 %C	13 20 74 ALGAL UNITS PER ML	05 30 74 IS	05 30 74 %C	05 30 74 ALGAL UNITS PER ML	11 12 74 IS	11 12 74 %C	11 12 74 ALGAL UNITS PER ML
SCENEDESMUS BIJUGA	COL					1.6%	198			
SCENEDESMUS DENTICULATUS	COL		0.6%	81		0.2%	25			X
SCENEDESMUS DIMORPHUS	COL			X		0.2%	25			X
SCENEDESMUS QUADRICAUDA	COL			X		1.2%	149			X
SCENEDESMUS SPP.	COL								12.7%	373
SCHROEDERIA SETIGERA	CEL					1.2%	149			
SPERMATOZOOPSIS	CEL					2.6%	322			
SPHAEROCYSTIS SCHROETERI	COL			X						
STAURASTRUM	CEL						X			
SYNEDRA	CEL					2.4%	298			
SYNEDRA #2	CEL						X			
SYNEDRA RUMPENS	CEL						X			
TABELLARIA	CEL						X			
TETRAEDRON CAUDATUM	CEL								0.9%	27
TETRAEDRON MINIMUM	CEL						X		2.7%	80
TETRAEDRON MUTICUM	COL			X		0.2%	25			X
TETRASTRUM HETERACANTHUM	COL			X					0.9%	27
TETRASTRUM STAUROGENIAEFORME	CEL	14%	4.1%	526						
TRACHELOMONAS	CEL			X						
TRACHELOMONAS #1	CEL			X						
TRACHELOMONAS #2	CEL									
TRACHELOMONAS HISPIDA	CEL					0.6%	74			
TRACHELOMONAS URCEOLATA	CEL						X			
TRACHELOMONAS VOLVOCINA	CEL					1.0%	124			
PSEUDARIA SETIGERUM	CEL		0.3%	40			X			
PSEUDARIA TRIAPPENDICULATA	CEL					0.4%	50			
TOTAL				12899			1c175			2935

LAKE NAME: CADDO
STORET NUMBER: 2206

NYGAARD TROPHIC STATE INDICES

DATE	03 23 74	05 31 74	06 03 74
MYXOPHYCEAN	0670 E	10.0 E	3.50 E
CHLOROPHYCEAN	0710 E	15.0 E	8.00 E
EUGLENOPHYTE	0.08 ?	0.20 ?	0723 ?
DIATOM	0.29 ?	0.60 E	0.37 E
COMPOUND	1670 E	33.0 E	13.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 23 74	05 31 74	06 03 74
GENUS	22	22	17
SPECIES	16	12	10

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 23 74	05 31 74	06 03 74
AVERAGE DIVERSITY	H	3.26	3.02	3.14
NUMBER OF TAXA	S	32.00	49.00	43.00
NUMBER OF SAMPLES COMPOSITED	M	6.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.00	5.61	5.43
MINUMUM DIVERSITY	MINH	0.04	0.03	0.02
TOTAL DIVERSITY	D	38288.70	93251.56	110553.12
TOTAL NUMBER OF INDIVIDUALS/ML	N	11745.00	30876.00	35208.00
EVENESS COMPONENT	J	0.65	0.54	0.58
RELATIVE EVENESS	RJ	0.65	0.54	0.58
MEAN NUMBER OF INDIVIDUALS/TAXA	L	367.03	630.16	818.79
NUMBER/ML OF MOST ABUNDANT TAXON	K	4859.00	15979.00	16418.00

LAKE NAME: CADDO
STORET NUMBER: 2206

CONTINUED

TAXA	FORM	03 23 74 BS	03 23 74 %C	03 23 74 ALGAL UNITS PER ML	05 31 74 BS	05 31 74 %C	05 31 74 ALGAL UNITS PER ML	08 03 74 BS	08 03 74 %C	08 03 74 ALGAL UNITS PER ML
ANABAENA	FIL				151	2.49	734			
ANABAENA PLANCTONICA	FIL	141	1.31	152				141	2.31	833
ANABAENOPSIS	FIL						X			
ANKISTRODESMUS FALCATUS	CEL		4.71	557		0.81	246		1.31	444
APHANIZOMENON FLOS-AQUAE	FIL						X			
APHANOTHECE CLATHRATA ?	COL					2.49	734			
ASTERIONELLA FORMOSA	CEL						X			
ASTERIONELLA FORMOSA V. GRACILLIMA	CEL		0.49	51					0.21	74
BINUCLEARIA	FIL					0.81	246			
CHLAMYDOMONAS	CEL	121	9.51	1114	151	1.61	489		0.41	148
CHLAMYDOMONAS CIENKOWSKII ?	CEL						X			
CHLORELLA	CEL								0.81	299
CHLOROGONIUM	CEL		9.99	101		0.51	163			
CLOSTERIUM	CEL									X
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL						X			
CRUCIGENIA APICULATA	COL					.31	82		0.21	74
CRUCIGENIA FENESTRATA	COL						X			
CRUCIGENIA TETRAPEDIA	COL		0.49	51						
CRYPTOMONAS	CEL	151	1.71	202	141	1.31	408		1.31	444
CRYPTOMONAS #1	CEL			X						
CRYPTOMONAS #2	CEL			X						
CYCLOTELLA STELLIGERA	CEL									X
CYMATOPLEURA	CEL			X						
DACTYLOCOCCOPSIS	CEL					0.31	1957			
DICTYOSPHAERIUM	COL					.31	82		0.41	148
DICTYOSPHAERIUM PULCHELLUM	COL									X
DINOBRYON BAVARICUM	CEL								1.51	518
DINOBRYON SERTULARIA	CEL			X						
DINOBRYON SOCIALE	CEL					2.61	815			
EUGLENA	CEL						X			
EUGLENA ACUS	CEL					0.31	82			
EUNOTIA PECTINALIS	CEL						X			
EUNOTIA PECTINALIS V. MINOR F. IMPRESSA	CEL			X						
FLAGELLATE #1	CEL		7.31	861		1.31	408		2.11	740
FLAGELLATE #3	CEL									X
GLOEOCYSTIS	COL		0.91	101						
GOLENKINIA	CEL						X		0.21	74
GYMNODINIUM UBDINATUM	CEL								1.11	370
KIRCHNERIELLA	CEL		4.71	557		2.11	652		1.91	666
KIRCHNERIELLA CONTORTA	CEL									X
LAGERHEIMIA SUBSALSA	CEL						X		0.21	74
LYNGBYA LAGERHEIMII	FIL							131	7.11	2514
LYNGBYA SUBTILISSIMA	FIL		2.21	253	1131	51.71	15979	1131	46.61	16418
MALLOMONAS	CEL					1.11	326			
MELOSIRA DISTANS	CEL	1131	41.41	4859		2.61	815		6.31	2219
MELOSIRA GRANULATA	CEL		0.91	101	121	5.51	1712	121	8.41	2958
MERISMOPEDIA TENUISSIMA	COL					.81	246		2.91	1035
MICRACTINIUM	COL						X			
MICROCYSTIS INCERTA	COL		2.61	304		3.71	1141		3.81	1331
PDLCELTIA ?	FIL							151	1.11	370
NITZSCHIA	CEL		5.21	607						
NITZSCHIA ACICULARIS	CEL			X						X
NITZSCHIA FILIFORMIS	CEL									X
NITZSCHIA PALEA	CEL						X			X
NITZSCHIA PALEA VARS. ?	CEL					0.31	1957			
OPHIOCYTIUM	CEL		0.41	51			X			
OSCILLATORIA	FIL	131	4.31	506						
OSCILLATORIA GEMINATA	FIL						X			
PEDIASTRUM DUPLEX	COL					.31	82			
PEDIASTRUM DUPLEX V. RETICULATUM	COL								0.21	74
PEDIASTRUM TETRAS V. TETRADON	COL			X		0.31	82			X
PENNATE DIATOM	CEL			X						
PENNATE DIATOMS	CEL								5.51	1923
PERIDINIUM INCONSPICUUM	CEL						X			
PHACUS	CEL						X			
PHACUS ACUMINATUS V. TRIQUETRA ?	CEL						X			
PHORMIDIUM MUCICOLA	FIL									X
RAPHIDIOPSIS	FIL		0.01	709			X			
RAPHIDIOPSIS CURVATA	FIL			X						X
SCENEDESMUS ABUNDANS	COL					1.01	296		0.81	222
SCENEDESMUS BIJUGA	COL		1.31	152		1.11	326		0.81	222
SCENEDESMUS DENTICULATUS	COL									X
SCENEDESMUS DIMORPHUS	COL						X			
SCENEDESMUS QUADRICAUDA	COL		1.31	152		0.81	246		1.71	592
STAURASTRUM	CEL						X			X

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LAKE NAME: CADDO
STORET NUMBER: 2206

CONTINUED

TAXA	FORM	03 23 74 BS	03 23 74 %	03 23 74 ALGAL UNITS PER ML	05 31 74 BS	05 31 74 %	05 31 74 ALGAL UNITS PER ML	06 03 74 BS	06 03 74 %	06 03 74 ALGAL UNITS PER ML
STEPHANODISCUS	CEL					0.81	246			
SURIRELLA LINEARIS V. CONSTRICTA	CEL								0.21	74
SURIRELLA TENERA ?	CEL								0.21	74
SYNEDRA ACUS	CEL					1.13	326			
SYNEDRA ULNA	CEL		1.31	152					0.63	222
TETRAEDRON CAUDATUM V. LONGECORNUTUM	CEL								0.21	74
TETRASTRUM STAUROGENIAEFORME	CEL		0.91	101						
TRACHELOMONAS PULCHELLA	CEL		0.41	51		X				
TOTAL				11745			3.678			35208

LAKE NAME: CUCUDRIE
STORET NUMBER: 2207

NYGAARD TROPHIC STATE INDICES

DATE	03 19 74	05 29 74
MYXOPHYCEAN	3.00 E	5.00 E
CHLOROPHYCEAN	4.00 E	9.00 E
EUGLENOPHYTE	0.29 E	0.50 E
DIATOM	2.00 E	1.50 E
COMPOUND	11.0 E	27.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 19 74	05 29 74
GENUS	06	05
SPECIES	00	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 19 74	05 29 74
AVERAGE DIVERSITY	H	2.29	3.03
NUMBER OF TAXA	S	18.00	38.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.17	5.25
MINIMUM DIVERSITY	MINH	0.06	0.03
TOTAL DIVERSITY	D	9288.24	52022.07
TOTAL NUMBER OF INDIVIDUALS/ML	N	4056.00	17169.00
EVENESS COMPONENT	J	0.55	0.58
RELATIVE EVENESS	RJ	0.55	0.58
MEAN NUMBER OF INDIVIDUALS/TAXA	L	225.33	451.82
NUMBER/ML OF MOST ABUNDANT TAXON	K	2143.00	6595.00

LAKE NAME: COCODRIE
STORET NUMBER: 2207

CONTINUED

TAXA	FORM	08 14 74 IS	08 14 74 %	08 14 74 ALGAL UNITS PER ML	08 29 74 IS	08 29 74 %	08 29 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL					0.2	32
ANABAENA	FIL						X
ANABAENOPSIS ELENKINII	FIL						X
ANKISTRODESMUS	CEL	13	6.6	268		0.2	32
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL			X			
CHLAMYDOMONAS	CEL						X
CLOSTERIUM	CEL		0.9	38			X
COELASTRUM SPHAERICUM	COL						X
CRUCIGENIA TETRAPEDIA	COL			X			
CRYPTOMONAS EROSA	CEL			X		1.5	256
CRYPTOMONAS REFLEXA	CEL			X			
CRYPTOMONAS SPP.	CEL		4.7	191			
CYANOPHYTAN FILAMENT	COL					0.7	128
CYCLOTELLA MENEGHINIANA	CEL				11	38.4	6595
DACTYLOCOCCOPSIS	CEL		1.9	77		1.1	192
EUGLENA	CEL						X
FLAGELLATE #1	CEL	11	52.8	2143			
FLAGELLATES	CEL					10.1	1729
KIRCHNERIELLA	CEL		1.9	77			
MELOSIRA #4	CEL					1.5	256
MELOSIRA DISTANS	CEL			X	13	9.3	1601
MELOSIRA GRANULATA	CEL				15	1.9	323
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL			X		2.4	416
MERISMOPEDIA	COL	14	11.3	459		0.4	64
MESOSTIGMA VIRIDIS	CEL					0.2	32
MICROCYSTIS INCERTA	CEL	15	7.5	306			
NITZSCHIA	CEL	12	11.3	459		4.1	704
NITZSCHIA HOLSATICA ?	CEL				14	3.2	554
PEDIASTRUM DUPLEX V. RETICULATUM ?	CEL						X
PENNATE DIATOMS	CEL					6.5	1121
PERIDINIUM PENARDIFORME	CEL						X
PHACUS LONGICAUDA	CEL						X
PHACUS PLEURONECTES ?	CEL						X
SCENEDESMUS BICAUDATUS	COL			X			
SCENEDESMUS BIJUGA V. ALTERNANS	COL					0.2	32
SCHIZOCHLAMYS COMPACTA ?	COL						X
SCHROEDERIA SETIGERA	CEL					0.7	128
STEPHANODISCUS	CEL				32	15.8	2721
SYNEDRA	CEL						X
TETRAEDRON	CEL						X
TETRAEDRON ARTHRODESKIFORME V. CONTURTA	CEL						X
TETRAEDRON MUTICUM	CEL					0.2	32
TRACHELOMONAS	CEL			X			
TRACHELOMONAS #1	CEL		0.9	38		0.2	32
TRACHELOMONAS #2	CEL					0.2	32
TRACHELOMONAS FLUVIATILIS	CEL					0.6	96
TRACHELOMONAS SCABRA ?	CEL					0.4	64
TOTAL				4056			17169

LAKE NAME: CUTTLE
STORET NUMBER: 2208

NYGAARD TROPHIC STATE INDICES

DATE	03 20 74	05 30 74	11 12 74
MYXOPHYCEAN	5.00 E	05/0 E	09/0 E
CHLOROPHYCEAN	16.0 E	11/0 E	10/0 E
EUGLENOPHYTE	0.19 ?	0.19 ?	0/19 ?
DIATOM	0.33 E	0.67 E	0.50 E
COMPOUND	27.0 E	21/0 E	21/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 20 74	05 30 74	11 12 74
GENUS	13	11	06
SPECIES	03	08	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 20 74	05 30 74	11 12 74
AVERAGE DIVERSITY	H	3.63	3.77	3.91
NUMBER OF TAXA	S	45.00	31.00	33.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.49	4.95	5.04
MINIMUM DIVERSITY	MINH	0.07	0.10	0.07
TOTAL DIVERSITY	D	33719.07	15152.76	25098.29
TOTAL NUMBER OF INDIVIDUALS/ML	N	9289.00	4014.00	6419.00
EVENESS COMPONENT	J	0.66	0.76	0.78
RELATIVE EVENESS	RJ	0.66	0.76	0.78
MEAN NUMBER OF INDIVIDUALS/TAXA	L	206.42	129.48	194.52
NUMBER/ML OF MOST ABUNDANT TAXON	K	3220.00	634.00	841.00

LAKE NAME: CUTTLE
STORET NUMBER: 2208

CONTINUED

TAXA	FORM	09 20 74			09 30 74			11 12 74		
		%S	%C	ALGAL UNITS PER ML	%S	%C	ALGAL UNITS PER ML	%S	%C	ALGAL UNITS PER ML
ANABAENA	FIL					3.5	141		2.4	153
ANKISTRODESMUS FALCATUS	CEL					3.5	141			
ANKISTRODESMUS FALCATUS ?	FIL	15	6.5	607						
APHANOCAPSA	COL							15	7.2	459
APHANOTHECE NIDULANS	COL		2.0	187						X
ASTERIONELLA FORMOSA	CEL		1.0	93		8.8	352			
BINUCLEARIA ?	FIL								3.6	229
CERATIUM HIRUNDINELLA	CEL									X
CHLORELLA	CEL									X
CHLOROGONIUM	CEL								1.2	76
CHLOROGONIUM ?	CEL		2.0	187						
CLOSTERIOPSIS	CEL					1.7	70			
CLOSTERIUM	CEL			X						
COELASTRUM	COL			X						
COELASTRUM CAMBRICUM	COL								1.2	76
CRUCIGENIA APICULATA	COL						X			
CRUCIGENIA FENESTRATA	COL			X						
CRUCIGENIA TETRAPEDIA	COL						X		4.8	306
CRYPTOMONAS	CEL								3.6	229
CRYPTOMONAS EROSA	CEL			X						
CRYPTOMONAS REFLEXA	CEL			X						
CRYPTOMONAS SPP.	CEL	13	9.5	887	12	6.5	423			
CYCLOTELLA STELLIGERA	CEL				13	2.3	493		6.0	382
CYMBELLA	CEL		0.5	47						
DACTYLOCOCCOPSIS	CEL			X	14	5.8	634			X
DICTYOSPHAERIUM	COL					5.3	211			
DICTYOSPHAERIUM #2	COL		0.5	47						
DICTYOSPHAERIUM PULCHELLUM	COL		3.0	280						
ENDORYON	CEL						X			
ENCERYON BAVARICUM	CEL		2.5	233						X
FLAGELLATE	CEL				13	7.0	282			
FLAGELLATE CYST	CEL		9.5	47						
FLAKATOTHRIX	CEL			X		1.7	70			
EUGLENA	CEL									
EUGLENA ACUS	CEL			X						
EUGLENA SPP.	CEL		1.5	140						
EUNOTIA PECTINALIS V. UNDULATA	CEL									X
EUNOTIA VALIDA	CEL			X						
FLAGELLATE	CEL					7.0	282			
FLAGELLATE #1	CEL	12	6.5	607		3.5	141		8.3	535
FLAGELLATE #2	CEL		1.5	140					6.0	382
FLAGELLATE #9	CEL		0.5	47						
FRANCEIA OVALIS	CEL			X						
GOLENKINIA	CEL			X						
GOMPHONEMA	CEL			X						
KIRCHNERIELLA	CEL		3.0	280				14	13.3	841
LYNGBYA	FIL		4.5	420						X
MALLOMONAS	CEL		0.5	47						
MELOSIRA DISTANS	CEL	13	34.7	3229						
MERISMOPEDIA	COL						X			
MERISMOPEDIA PUNCTATA	COL	14	7.5	700				11	9.5	612
MERISMOPEDIA TENUISSIMA	COL							12	10.7	688
MICROCYSTIS	COL				15	8.8	352			
MICROCYSTIS AERUGINOSA	COL								3.6	229
MICROCYSTIS GLAUCA	COL		2.5	233						
MICROCYSTIS INCERTA	COL						X	13	10.7	688
MOUGEOTIA ?	FIL					3.5	141			
NAVICULA	CEL									X
NITZSCHIA ACICULARIS	CEL						X			
NITZSCHIA PALEA	CEL					3.5	141			X
OOCYSTIS	COL		0.5	47			X		3.6	229
OPHIOCYTIUM	CEL					1.7	70			
OPHIOCYTIUM CAPITATUM V. LONGECORNUTUM	CEL								2.4	153
PEDIASTRUM BICAUDATA V. LONGECORNUTUM	COL									X
PEDIASTRUM DUPLEX	COL			X					1.2	76
PERIDINIUM INCONSPICUUM	CEL		1.0	93						
PHACUS	CEL						X			
QUADRIGULA	CEL									X
RHIZOSOLENIA	CEL			X			X			
RHIZOSOLENIA ERIENSIS	CEL									X
SCENEDESMUS ARCUATUS V. PLATYDISCA	COL		0.5	47					1.2	76
SCENEDESMUS BIJUGA	COL		1.0	93		1.7	70			
SCENEDESMUS DENTICULATUS	COL		0.5	47						
SCENEDESMUS PROTUBERANS	COL						X			
SCHROEDERIA SETIGERA	CEL		4.0	373						
SYNEDRA	CEL		0.5	47						

LAKE NAME: COTILE
STONET NUMBER: 2208

CONTINUED

TAXA	FORM	03 20 74 IS	03 20 74 CC	03 20 74 ALGAL UNITS PER ML	05 30 74 IS	05 30 74 CC	05 30 74 ALGAL UNITS PER ML	11 12 74 IS	11 12 74 CC	11 12 74 ALGAL UNITS PER ML
SYNEDRA ULNA	CEL			X						
TABELLARIA FENESTRATA	CEL									X
TETRAEDRON GRACILE	CEL									X
TETRAEDRON MINIMUM	CEL			X			X			
TETRAEDRON REGULARE V. INCUS	CEL						X			
TRACHELOMONAS	CEL						X			
TRACHELOMONAS PULCHELLA	CEL			X						
TRACHELOMONAS SPP.	CEL		1.00	93						
TOTAL				9289			4014			6419

LAKE NAME: CONCORDIA
STORET NUMBER: 2209

NYGAARD TROPHIC STATE INDICES

DATE	03 19 74	05 30 74	11 11 74
MYXOPHYCEAN	1.67 E	1.67 E	6.00 E
CHLOROPHYCEAN	6.00 E	6.00 E	5.00 E
EUGLENOPHYTE	0.35 E	0.48 E	0.45 E
DIATOM	0.83 E	1.14 E	0.71 E
COMPOUND	12.0 E	14.0 E	21.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 19 74	05 30 74	11 11 74
GENUS	09	13	11
SPECIES	07	01	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 19 74	05 30 74	11 11 74
AVERAGE DIVERSITY	H	0.92	3.82	2.42
NUMBER OF TAXA	S	57.00	66.00	35.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.83	6.04	5.13
MINIMUM DIVERSITY	MINH	0.02	0.06	0.03
TOTAL DIVERSITY	D	38607.80	64875.06	51386.28
TOTAL NUMBER OF INDIVIDUALS/ML	N	41965.00	16983.00	21234.00
EVENESS COMPONENT	J	0.16	0.63	0.47
RELATIVE EVENESS	RJ	0.16	0.63	0.47
MEAN NUMBER OF INDIVIDUALS/TAXA	L	736.23	257.32	606.69
NUMBER/ML OF MOST ABUNDANT TAXON	K	36743.00	3889.00	11286.00

LAKE NAME: CONCORDIA
STORET NUMBER: 2209

CONTINUED

TAXA	FORM	83 19 74			05 30 74			11 11 74		
		BS	ZC	ALGAL UNITS PER ML	BS	ZC	ALGAL UNITS PER ML	BS	ZC	ALGAL UNITS PER ML
ANABAENA	FIL					0.65	92			
ANABAENOPSIS	FIL								0.58	98
ANABAENOPSIS CIRCULARIS ?	FIL		0.13	34						
ANABAENOPSIS ELENKINII	FIL				131	6.58	1098			X
ANKISTRODESMUS ?	CEL		0.48	169					1.33	239
ANKISTRODESMUS FALCATUS	CEL					0.33	46			
APHANOCAPSA	COL						X			
CENTRIC DIATOMS	CEL					3.58	505			
CERATIUM HIRUNDINELLA										
F. BRACHYCERAS	CEL		0.13	34			X			X
CHLOROGONIUM	CEL					0.65	92		1.33	239
CHLOROPHYTAN FLAGELLATE	CEL			X						
CHRYSOCOCCUS RUFESCENS	CEL									X
COCCONEIS	CEL			X			X			X
COELASTRUM ?	COL			X						
COELASTRUM CAMBRICUM ?	COL			X						
COELASTRUM CAMBRICUM										
V. INTERMEDIUM	COL					0.65	92			
COSMARIUM #1	CEL						X			
COSMARIUM #2	CEL									X
COSMARIUM #4	CEL			X						
COSMARIUM CLEPSYDRA										
V. NANUM	CEL					0.33	46			
CRUCIGENIA TETRAPEDIA	COL			X		0.65	92		0.25	48
CRYPTOMONAS	CEL	131	0.91	373		1.65	275	141	4.58	956
CRYPTOMONAS EROSA	CEL			X						
CRYPTOMONAS REFLEXA	CEL			X		0.33	46		0.75	143
CYCLOTELLA	CEL	121	2.61	647						
CYCLOTELLA MENEGHINIANA	CEL						X	111	16.91	3587
CYCLOTELLA STELLIGERA	CEL						X			
CYMATOPLEURA ELLIPTICA	CEL									X
DACTYLOCOCCOPSIS	CEL					22.91	3889			
DACTYLOCOCCOPSIS IRREGULARIS	CEL	151	5.41	2271				82	53.25	11286
DINOBRYON	CEL					0.33	46			
EPITHEMIA TURGIDA	CEL								0.25	48
EUASTRUM DENTICULATUM ?	CEL					0.33	46			
EUGLENA #1	CEL					0.65	92			
EUGLENA #2	CEL		0.13	34						
EUGLENA #3	CEL			X						
EUGLENA #4	CEL			X						
EUGLENA #5	CEL						X			
EUGLENA ACUS	CEL						X			
EUGLENA OXYURIS	CEL			X						
FLAGELLATE #1	CEL		0.91	373						
FLAGELLATE #4	CEL			X		0.33	46			
FLAGELLATES	CEL				121	12.49	2105			
FRANCEIA	CEL						X			
GLENODINIUM OCULATUM	CEL			X						
GLENODINIUM OCULATUM ?	CEL				111	1.65	275			
GOLENKINIA PAUCISPINA	CEL						X			
GOLENKINIA RADIATA	CEL		0.25	68						
GOMPHONEMA OLIVACEUM	CEL									X
GOMPHONEMA SPHAEROPHORUM	CEL									X
GYMNODINIUM ALBULUM	CEL		0.33	136						
GYMNOLINIUM ORDINATUM	CEL								0.75	143
GYROSIGMA	CEL			X						
MELOSIRA DISTANS	CEL	111	87.61	36743		4.61	778	131	10.61	2248
MELOSIRA GRANULATA	CEL		0.25	68		1.11	183	151	2.01	430
MELOSIRA GRANULATA										
V. ANGUSTISSIMA F. SPIRALIS	CEL			X		1.11	183			X
MELOSIRA VARIANS	CEL			X			X			X
MERISMOPEDIA TENUISSIMA	COL		0.33	136	151	12.71	2153		0.58	98
MICROCYSTIS INCERTA	COL			X						
NAVICULA	CEL						X			
NITZSCHIA	CEL			X						
NITZSCHIA ACICULARIS	CEL			X		9.21	1556			
NITZSCHIA HOLSATICA ?	CEL				141	6.21	1052			
OPHIOCYTIUM CAPITATUM										
V. LONGECORNUTUM	CEL		0.25	68						
OSCILLATORIA #1	FIL								2.91	622
OSCILLATORIA LIMNETICA	FIL		0.13	34					1.81	383
PANDORINA MORUM	COL					0.33	46			
PANDORINA MORUM ?	COL		0.25	68						
PEDIASTRUM DUPLEX	COL			X						
PEDIASTRUM TETRAS										
V. TETRADON	COL		0.13	34			X			
PENNATE DIATOMS	CEL					1.65	275			
PERIDINIUM INCONSPICUUM	CEL						X			
PERIDINIUM QUADRIDENS	CEL					0.33	46			
PERIDINIUM URBUNATUM	CEL			X						
PHACUS	CEL						X			
PHACUS ACUMINATUS	CEL									X

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LAKE NAME: CONCORUTA
STORET NUMBER: 2209

CONTINUED

TAXA	FORM	03 19 74 %S	03 19 74 %C	03 19 74 ALGAL UNITS PER ML	05 30 74 %S	05 30 74 %C	05 30 74 ALGAL UNITS PER ML	11 11 74 %S	11 11 74 %C	11 11 74 ALGAL UNITS PER ML
PHACUS CAUDATUS	CEL		0.33	34						
PHACUS CURVICAUDA	CEL						X			
PHACUS HELIKOIDES	CEL						X			
PHACUS ORBICULARIS ?	CEL						X			
PHACUS PLEURONECTES	CEL			X						
PHACUS PSEUDONORDSTEDTII	CEL					0.33	46			
PHACUS PYRUM	CEL			X			X		0.21	48
PHACUS TORTUS	CEL			X					0.21	48
PTEROMONAS ANGULOSA	CEL					1.11	183			
SCENEDESMUS ABUNDANS	COL			X			X			
SCENEDESMUS BICAUDATUS	COL		0.11	34		0.33	46			
SCENEDESMUS BIJUGA	COL						X			
SCENEDESMUS DIMORPHUS	COL			X						
SCENEDESMUS QUADRICAUDA	COL	141	0.61	237			X		0.21	48
SCENEDESMUS SPP.	COL					1.11	183			
SCHROEDERIA SETIGERA	CEL						X			
SPERMATOZOOPSIS	CEL					0.33	46			
STAURASTRUM	CEL			X						
STAURASTRUM LEPTOCLADUM V. SUBINSIGNE	CEL			X						
STEPHANODISCUS	CEL						X			
SURIRELLA #1	CEL						X			
SURIRELLA #2	CEL			A						X
SURIRELLA ANGUSTATA	CEL									
SYNEDRA	CEL						X			X
SYNEDRA ULNA	CEL		0.11	34						
TETRAEDRON ?	CEL						X			
TETRAEDRON CAUDATUM	CEL								0.21	48
TETRAEDRON CAUDATUM V. LONGECORNUTUM	CEL			X		0.51	92			
TETRAEDRON CONSTRICTUM	CEL		0.11	34			X			
TETRAEDRON GRACILE	CEL			X						
TETRAEDRON LOBULATUM	CEL						X			
TETRAEDRON MINIMUM	CEL								1.11	239
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		0.21	68		5.71	961			
TETRAEDRON REGULARE V. TORSUM ?	CEL			X						
TETRAEDRON TRIGONUM	CEL						X			
TETRAEDRON TRIGONUM V. GRACILE	CEL			X						
TETRASTRUM STAUROGENIAEFORME	COL		0.11	34						
TRACHELOMONAS HISPIDA V. PUNCTATA	CEL								0.71	143
TRACHELOMONAS LACUSTRIS	CEL						X			
TRACHELOMONAS SIMILIS	CEL					0.51	92			
TRACHELOMONAS VOLVOCINA	CEL								0.51	96
TREUBARIA TRIAPPENDICULATA	CEL					0.51	92			
TOTAL				41965			16983			21234

LAKE NAME: CROSS
STORET NUMBER: 2210

NYGAARD TROPHIC STATE INDICES

DATE	03 23 74	06 03 74	08 26 74	11 11 74
MYXOPHYCEAN	4.00 E	2.67 E	2.75 E	1.67 E
CHLOROPHYCEAN	8.00 E	4.50 E	6.50 E	5.33 E
EUGLENOPHYTE	0.06 ?	0.16 ?	0.14 ?	0.14 ?
DIATOM	0.40 E	0.60 E	1.00 E	0.50 E
COMPOUND	14.0 E	8.83 E	10.7 E	8.17 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 23 74	06 03 74	08 26 74	11 11 74
GENUS	16	26	19	19
SPECIES	04	07	07	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 23 74	06 03 74	08 26 74	11 11 74
AVERAGE DIVERSITY	H	3.56	3.18	1.00	3.61
NUMBER OF TAXA	S	44.00	72.00	57.00	66.00
NUMBER OF SAMPLES COMPOSITED	M	5.00	5.00	5.00	5.00
MAXIMUM DIVERSITY	MAXH	5.46	6.17	5.83	6.04
MINIMUM DIVERSITY	MINH	0.03	0.03	0.01	0.05
TOTAL DIVERSITY	D	69275.50	138695.70	213419.00	75152.98
TOTAL NUMBER OF INDIVIDUALS/ML	N	19793.00	43615.00	213419.00	2818.00
EVENESS COMPONENT	J	0.64	0.52	0.17	0.60
RELATIVE EVENESS	RJ	0.64	0.52	0.18	0.60
MEAN NUMBER OF INDIVIDUALS/TAXA	L	449.84	605.76	3744.19	315.42
NUMBER/ML OF MOST ABUNDANT TAXON	K	7626.00	22203.00	180343.00	4566.00

LAKE NAME: CROSS
STORET NUMBER: 2210

CONTINUED

TAXA	FORM	03 23 74 %S	03 23 74 %C	03 23 74 ALGAL UNITS PER ML	06 03 74 %S	06 03 74 %C	06 03 74 ALGAL UNITS PER ML	08 26 74 %S	08 26 74 %C	08 26 74 ALGAL UNITS PER ML	11 11 74 %S	11 11 74 %C	11 11 74 ALGAL UNITS PER ML
ANABAENA	FIL			X			X			X			
ANABAENA #1	FIL				148	4.01	1749					0.71	144
ANABAENOPSIS RACIBORSKII	FIL				11850.91		22203	11184.51		180343		0.71	144
ANKISTRODESMUS ? FALCATUS	CEL		5.91	1165							11	20.21	4206
ANKISTRODESMUS FALCATUS	CEL					0.91	371		0.01	98			
APHANIZOMENON FLOS-AQUAE	FIL				151	2.61	1313						X
APHANOTHECE	COL												
APHANOTHECE NIDULANS	COL		0.31	58			X						
CENTRIC DIATOM	CEL						X					0.51	108
CHLAMYDOMONAS	CEL									X			
CHLAMYDOMONAS #1	CEL												
CHLAMYDOMONAS #2	CEL						X		0.11	251			
CHLAMYDOMONAS GLOBOSA	CEL					0.11	53		0.01	49			
CHLORDGONIUM	COL				121	5.71	2491				12	11.71	2445
CHROOCOCCUS	COL												
CHROOCOCCUS DISPERSUS	CEL		0.31	58		0.11	53					0.91	180
CLOSTERIUM	COL					0.61	265						
COCCOID COLONY	COL									X			
COELASTRUM CAMBRICUM													
COELASTRUM CAMBRICUM v. INTERMEDIUM	COL			X					0.01	68			X
COELASTRUM SPHAERICUM	COL						X						
COELOSPHAERIUM KAEGELIANUM	COL						X						
COELOSPHAERIUM PALLIDUM	COL								0.01	51			
COELOSPHAERIUM PALLIDUM ?	COL											0.21	36
COSMARIUM	CEL		0.31	58								0.51	108
COSMARIUM #1	CEL						X		0.01	101			
COSMARIUM #2	CEL									X			
COSMARIUM #3	CEL					0.41	159						
CRUCIGENIA APICULATA	COL						X		0.11	119			
CRUCIGENIA CRUCIFERA	COL												X
CRUCIGENIA FENESTRATA	COL			X								0.21	36
CRUCIGENIA QUADRATA	COL											1.21	252
CRUCIGENIA TETRAPEDIA	COL		0.91	174			X					1.61	324
CRUCIGENIA TRUNCATA	COL			X									
CRYPTOMONAS	CEL											1.71	359
CRYPTOMONAS EROSA	CEL					1.61	689	151	0.41	893			
CRYPTOMONAS REFLEXA	CEL			X									
CRYPTOMONAS SPP.	CEL		1.21	233									
CYANOPHYTIAN FILAMENT	FIL			X									
CYMBELLA	CEL					0.11	53				13	21.91	4566
DACTYLOCOCCOPSIS	CEL		4.11	815					1.11	2294			
DACTYLOCOCCOPSIS IRREGULARIS	CEL											0.51	108
DICTYOSPHAERIUM PULCHELLUM	COL	151	1.21	233			X		0.11	153			
DICTYOSPHAERIUM PULCHELLUM ?	COL												X
DINOBRYON	CEL												
DINOBRYON BAVARICUM	CEL		0.61	116									
ELAKATOTHRIX	CFL						X						X
ELAKATOTHRIX GELATINOSA	CEL											0.51	108
EUASTRUM	CEL												X
EUASTRUM DENTICULATUM	CEL					0.11	53		0.01	101			
EUGLENA	CEL		0.91	174		0.11	53					0.51	108
EUGLENA #1	CEL						X			X			
EUGLENA ACUS	CEL						X						X
FLAGELLATE #1	CEL		2.41	466		2.61	1313		0.51	1095		4.11	863
FLAGELLATE #3	CEL		1.81	349									
GLENODINIUM PENARDIFORME	CEL						X						
GOMPHOSPHAERIA	COL					1.81	795						
GYMNODINIUM	CEL		0.91	174					0.01	101			
GYMNODINIUM ALBULUM	CEL												
GYROSIGMA	CEL						X						
KIRCHNERIELLA	CEL					0.21	106					2.11	431
KIRCHNERIELLA ?	COL								0.11	199			
LAGERHEIMIA ?	CEL					0.41	159						
LAGERHEIMIA SUBSALSA ?	CEL						X						
LUNATE CELL	CEL		7.11	1398									
LYNGBYA CIRCUNCRETA	FIL					1.61	689		0.01	102		0.31	72
LYNGBYA LIMNETICA	FIL					3.61	1590		0.01	102			
MALLOMONAS ACARUIDES	CEL								0.01	101			
MELOSIRA DISTANS	CEL	11	38.51	7628		0.61	265						
MELOSIRA GRANULATA	CEL	131	4.71	932		0.21	106						X
MELOSIRA GRANULATA ?	CEL									X			
MERIDION ?	CEL			X									
MERISMOPEDIA TENUISSIMA	COL	141	3.21	641		3.41	1484	131	1.41	3042		4.81	1007
MICROCYSTIS	COL											2.81	575
MICROCYSTIS AERUGINOSA	COL						X		0.01	85			X
MICROCYSTIS INCERTA	COL	121	5.61	1106		2.71	1166		0.31	603	14	12.11	2516
NAVICULA	COL		2.11	408		0.41	159					0.31	72
NITZSCHIA	CEL			X					0.21	399			
OCHROMONAS ?	CEL			X						X			
OOCYSTIS	CEL												X
OOCYSTIS PUSILLA	CEL					0.41	159						
	COL								0.11	203			

LAKE NAME: CROSS
STORET NUMBER: 2210

CONTINUED

TAXA	FORM	03 23 74 IS	03 23 74 %C	03 23 74 ALGAL UNITS PER ML	06 03 74 IS	06 03 74 %C	06 03 74 ALGAL UNITS PER ML	08 26 74 IS	08 26 74 %C	08 26 74 ALGAL UNITS PER ML	11 11 74 IS	11 11 74 %C	11 11 74 ALGAL UNITS PER ML
OPHIOCYTIUM	CEL		X										
OPHIOCYTIUM ?	CEL												X
OSCILLATORIA	CEL					0.11	53	141	0.91	1817			
PALMELLOID COLONY	COL		0.31	58									
PEDIASTRUM BICAUDATA													
V. LONGECORNUTUM	COL								0.01	49			
PEDIASTRUM DUPLEX	COL		0.61	116									
PEDIASTRUM DUPLEX													
V. CLATHRATUM	COL			X									
PEDIASTRUM DUPLEX													
V. GRACILIMUM	COL								X				
PEDIASTRUM DUPLEX													
V. RETICULATUM	COL					0.11	53		0.01	17			X
PEDIASTRUM SIMPLEX	COL								X				X
PEDIASTRUM SIMPLEX													
V. DUODENARIUM	COL					X							
PEDIASTRUM TETRAS													
V. TETRAODON	COL			X		X			0.01	17		0.21	36
PENNATE DIATOM	CEL		9.41	1863									
PERIDINIUM INCONSPICUUM	CEL					0.11	53						
PERIDINIUM UMBONATUM	CEL											0.21	36
PHACUS	CEL								X				
PHACUS ? #1	CEL								0.01	17			
PHACUS #1	CEL											0.21	36
PHACUS CAUDATUS	CEL					0.11	53		X				
PHACUS LONGICAUDA ?	CEL												X
PHACUS MEGALOPSIS	CEL					X							
PHORMIDIUM MUCICOLA	CEL					X							
POLYEDRIOPSIS SPINULOSA	CEL								X				
RAPHIDIOPSIS	FIL			X									
RAPHIDIOPSIS CURVATA	FIL				131	6.91	3021						
RAPHIDIOPSIS CURVATA ?	FIL							121	9.51	20210			
RHODUPONAS ?	CEL								X				
SCENEDESMUS ABUNDANS	COL					0.11	53		0.01	51			X
SCENEDESMUS ARCUATUS													
V. PLATYDISCA	COL					0.11	53		0.01	17			
SCENEDESMUS BICAUDATUS	COL		0.31	58		0.51	212		0.01	85			X
SCENEDESMUS BIJUGA	COL		0.31	58									X
SCENEDESMUS BIJUGA													
V. ALTERNANS	COL												X
SCENEDESMUS DENTICULATUS	COL												X
SCENEDESMUS DENTICULATUS													
V. LINEARIS	COL								X				
SCENEDESMUS DIMORPHUS	COL					0.41	159		0.01	51			X
SCENEDESMUS GRANULATUS	COL					0.11	53						
SCENEDESMUS INTERMEDIUS	COL												X
SCENEDESMUS INTERMEDIUS													
V. BICAUDATUS	COL								0.01	51			
SCENEDESMUS OBLIQUUS	COL												X
SCENEDESMUS OPOLIENSIS	COL		0.31	58									X
SCENEDESMUS QUADRICAUDA	COL		2.41	466		0.71	318		0.01	101			X
SCENEDESMUS SPP.	COL										151	4.51	935
SCHIZOCHLAMYS	COL												X
SCHROEDERIA SETIGERA	CEL					0.41	159						X
SCHROEDERIA SETIGERA ?	CEL								X				
SELENASTRUM	COL												X
SPERMATOZOOPSIS	CEL		1.21	00232								0.21	36
STAURASTRUM #1	CEL					0.11	53		X				X
STAURASTRUM #2	CEL							X					X
STAURASTRUM #3	CEL												X
SURIRELLA	CEL												X
SYNEDRA	CEL		0.61	116									
SYNEDRA #1	CEL					2.61	1113						
SYNEDRA #2	CEL					0.21	106						
TETRAEDRON	CEL					0.71	318						
TETRAEDRON CAUDATUM													
V. LONGECORNUTUM	CEL					0.41	159		0.01	100		0.21	36
TETRAEDRON GRACILE	CEL							X		X			
TETRAEDRON MINIMUM													
V. SCROBICULATUM	CEL					0.51	212		0.01	100		2.41	503
TETRAEDRON MUTICUM	CEL		2.61	524		0.11	53		0.01	51		0.91	180
TETRAEDRON REGULARE													
V. INCUS	CEL											1.21	252
TETRALLANTOS LAGERHEIMII	TET												X
TETRASTRUM HETERACANTHUM	COL					0.11	53					0.51	108
TETRASTRUM STAUROGENIAEFORME	COL		0.31	58									
TRACHELOMONAS	CEL											0.21	36
TRACHELOMONAS HISPIDA ?	CEL							X					
TRACHELOMONAS VOLVOCINA	CEL			X									
TRACHELOMONAS VOLVOCINA													
V. DERIPHORA	CEL					0.41	159		0.01	98			
TREUBARIA TRIAPPENDICULATA	CEL					0.11	53		0.01	34			X
TOTAL				19793			43619			213419			20818

LAKE NAME: D'ARBUNNE
STORET NUMBER: 2211

NYGAARD TROPHIC STATE INDICES

DATE	03 21 74	05 31 74	11 11 74
MYXOPHYCEAN	03/0 E	5.00 E	2.50 E
CHLOROPHYCEAN	06/0 E	6.00 E	6.00 E
EUGLENOPHYTE	0.33 E	0.73 E	0.59 E
DIATOM	0.67 E	0.75 E	0.29 ?
COMPOUND	16/0 E	25.0 E	15.5 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 21 74	05 31 74	11 11 74
GENUS	01	15	10
SPECIES	00	03	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 21 74	05 31 74	11 11 74
AVERAGE DIVERSITY	H	2.91	3.41	3.52
NUMBER OF TAXA	S	31.00	46.00	62.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.95	5.52	5.95
MINIMUM DIVERSITY	MINH	0.15	0.28	0.33
TOTAL DIVERSITY	D	7219.71	6830.23	8145.28
TOTAL NUMBER OF INDIVIDUALS/ML	N	2481.00	2003.00	2314.00
EVENESS COMPONENT	J	0.59	0.62	0.59
RELATIVE EVENESS	RJ	0.58	0.60	0.57
MEAN NUMBER OF INDIVIDUALS/TAXA	L	80.03	43.54	37.32
NUMBER/ML OF MOST ABUNDANT TAXON	K	798.00	599.00	681.00

LAKE NAME: GRAFBUNNE
STUDY NUMBER: 2211

CONTINUED

TAXA	FORM	05 21 74 %	05 21 74 %	05 21 74 ALGAL UNITS PER ML	05 31 74 %	05 31 74 %	05 31 74 ALGAL UNITS PER ML	11 11 74 %	11 11 74 %	11 11 74 ALGAL UNITS PER ML
ANABAENA	FIL			X			X			
ANABAENOPSIS RACIBORSKII	FIL						X			
ANKISTRODESMUS FALCATUS	CEL				131	0.65	130	151	4.21	97
ASTERIONELLA ?	CEL									X
ASTERIONELLA FORMOSA	CEL			X	141	7.81	156			
ASTEROCOCCUS ?	COL									
ATTHEYA	CEL					1.31	26			X
CAPTERIA	CEL									X
CENTRIC DIATOM	CEL	1	1.81	44	1	7.81	156	1	3.51	81
CERATIUM HIRUNDINELLA	CEL				1	1.31	26			
CLOSTERIUM	CEL						X			
CROSTERIUM SETACEUM	CEL									X
COELASTRUM CAMBRICUM	COL									X
CRUCIGENIA APICULATA	COL									X
CRUCIGENIA TETRAPEDIA	CEL			X					0.61	14
CRYPTOMONAS	CEL	131	7.11	177	121	9.11	182			
CRYPTOMONAS SPP.	CEL							31	23.81	551
CYCLOTELLA STELLIGERA	CEL				131	10.41	208			
CYPERELLA	CEL			X						X
EACTYLOCOCCOPSIS	CEL	151	14.31	355				1	3.61	83
DICTYOSPHAERIUM PULCHELLUM	COL									X
DINOBRYON BAVARICUM	CEL	1	1.81	44			X			X
DINOBRYON SERTULARIA	CEL			X			X	1	2.31	54
DINOFLAGELLATE	CEL						X			
EUCELLENIA CHODATII	COL			X						
EUDORINA ELEGANS	CEL						X			
EUGLENA	CEL					5.21	104			
EUGLENA #1	COL			X						
EUGLENA ACUS	CEL						X			
EUGLENA ACUS ?	CEL									X
EUGLENA OXYURIS V. MINOR	CEL						X			
EUGLENA SPP.	CEL							1	1.31	30
EUNOTIA	CEL			X			X			X
EUNOTIA PECTINALIS	CEL						X			
EUNOTIA PECTINALIS V. UNDULATA	CEL									X
FLAGELLATE	COL				1	1.31	26			
FLAGELLATE #1	CEL	131	32.21	798	151	29.91	599			X
FLAGELLATE #3	CEL									X
FLAGELLATE #9	CEL	1	1.81	44						
FLAGELLATES	CEL							121	29.41	681
FRUSTULIA RHOMBOIDES	CEL									X
GLENODINIUM OCULATUM	CEL	1		X						X
GYMNODINIUM	CEL	1								X
GYROSIGMA	CEL						X			X
HERMIDIUM ?	FIL						X			
HYALOTHECA DISSILIENS	FIL									X
KIRCHNERIELLA	CEL							1	1.71	40
LEPOCINCLIS OVUM	CEL									X
LEPOCINCLIS SPP.	CEL							1	2.31	54
LUNATE CELL	CEL						X			
LYNGBYA	FIL							1	1.21	27
MALLOMONAS	CEL							141	1.71	40
MELOSIRA	CEL				1	1.31	26			
MELOSIRA #1	CEL	141	8.91	222						
MELOSIRA #2	CEL			X						
MELOSIRA DISTANS	CEL	121	14.31	355			X			X
MELOSIRA GRANULATA	CEL									X
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X			
MICROCYSTIS INCERTA	COL						X	1	1.21	27
MOUGEOTIA	FIL						X			
NAVICULA	CEL			X			X			
NAVICULA #2	CEL									X
NAVICULA SPP.	CEL							1	1.31	31
NITZSCHIA ACICULARIS	CEL							1	0.71	18
NITZSCHIA PALEA	CEL									X
NITZSCHIA SPP.	CEL							1	3.61	84
OPHIOCYTIUM CAPITATUM V. LONGECORNUTUM	CEL			X						X
OSCILLATORIA	FIL					2.61	52	1	0.61	14
OSCILLATORIA LIMNETICA	FIL	1	1.81	44						
OSCILLATORIA ORNATA	FIL						X			
PANDORINA MORUM	COL						X			
PEDIASTRUM DUPLEX	COL						X			
PENNATE	CEL	1	12.51	310						
PENNATE DIATOM	CEL				1	1.31	26			
PERIDINIUM INCONSPICUUP	CEL	1	1.81	44				1		X
PERIDINIUM UMBONATUM	CEL							131	1.71	40
PHACUS	CEL			X				1	1.21	27

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LAKE NAME: D'ARBONNE
STORET NUMBER: 2211

CONTINUED

TAXA	FORM	03 21 74 BS	03 21 74 %C	03 21 74 ALGAL UNITS PER ML	05 31 74 BS	05 31 74 %C	05 31 74 ALGAL UNITS PER ML	11 11 74 BS	11 11 74 %C	11 11 74 ALGAL UNITS PER ML
PHACUS HELIKOIDES	CEL						X			X
PHACUS MEGALOPSIS	CEL									X
PINNULARIA	CEL									X
RAPHIDIOPSIS CURVATA	FIL								7.61	175
SCENEDESMUS	COL								0.71	16
SCENEDESMUS ABUNDANS	COL			X						
SCENEDESMUS ARCUATUS	COL			X						
SCENEDESMUS BICAUDATUS	COL		1.61	46						X
SCENEDESMUS BIJUGA	COL					1.31	26			X
SCENEDESMUS DENTICULATUS	COL						X		0.71	16
SCENEDESMUS DENTICULATUS V. LINEARIS	COL			X						
SCENEDESMUS PROTUBERANS	COL						X			
SCENEDESMUS QUADRICAUDA	COL								1.21	27
SYNEDRA	CEL			X						X
SYNEDRA #1	CEL					7.81	156			
SYNEDRA DELICATISSIMA ?	CEL						X			
SYNEDRA ULNA	CEL									X
TABELLARIA	CEL									X
TETRAEDRON MINIMUM	CEL									X
TETRAEDRON REGULARE V. IACUS	CEL						X			
TETRAEDRON TRIGONUM V. GRACILE	CEL			X						
TRACHELOMONAS	CEL						X		1.51	34
TRACHELOMONAS HISPIDA	CEL					2.61	52		0.61	14
TRACHELOMONAS INTERMEDIA	CEL			X						
TRACHELOMONAS LACUSTRIS	CEL						X			
TRACHELOMONAS PULCHERRIMA	CEL								0.61	14
TRACHELOMONAS URCEOLATA	CEL					2.61	52			
TRACHELOMONAS VOLVOCINA	CEL								1.21	27
TOTAL				2481			2203			2314

LAKE NAME: FALSE RIVER
STORET NUMBER: 2212

NYGAARD TROPHIC STATE INDICES

DATE	03 21 74	05 29 74	11 12 74
MYXOPHYCEAN	2.00 E	2.40 E	6.00 E
CHLOROPHYCEAN	1.67 E	3.80 E	6.00 E
EUGLENOPHYTE	0.27 E	0.06 ?	0.07 ?
DIATOM	3.00 E	1.00 E	0.80 E
COMPOUND	5.67 E	7.40 E	19.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 21 74	05 29 74	11 12 74
GENUS	01	22	14
SPECIES	00	07	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 21 74	05 29 74	11 12 74
AVERAGE DIVERSITY	H	1.27	2.56	3.13
NUMBER OF TAXA	S	29.00	57.00	32.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.84	5.83	5.00
MINIMUM DIVERSITY	MINH	0.04	0.02	0.04
TOTAL DIVERSITY	D	12706.35	98675.84	32883.78
TOTAL NUMBER OF INDIVIDUALS/ML	N	10005.00	37764.00	10506.00
EVENESS COMPONENT	J	0.27	0.44	0.63
RELATIVE EVENESS	RJ	0.27	0.44	0.63
MEAN NUMBER OF INDIVIDUALS/TAXA	L	400.20	662.53	328.31
NUMBER/ML OF MOST ABUNDANT TAXON	K	7918.00	23937.00	3238.00

LAKE NAME: FALSE RIVER
STORET NUMBER: 2212

(CONTINUED)

TAXA	DESM	05 21 74 BS	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	05 29 74 BS	05 29 74 %C	05 29 74 ALGAL UNITS PER ML	11 12 74 BS	11 12 74 %C	11 12 74 ALGAL UNITS PER ML
ANABAENA	FIL								0.41	44
ANABAENA	FIL					X				
ANABAENA ?	FIL	431	0.31	630	0.61	227				X
ANABAENA #1	FIL		0.41	39	0.13	38				
ANABAENA #2	FIL	121	9.51	551						
ANABAENA SPIROIDES	FIL				1.21	454				
ANABAENOPSIS ELENKINII	FIL				0.38	114				
ANABAENOPSIS RACIBORSKII	FIL				1.11	417				
ANKISTRODESMUS FALCATUS	CEL				0.13	38				
APHANIZOMENON FLOS-AQUAE	FIL	11	79.11	7918	0.13	38				
CERATIUM HIRUNDINELLA	CEL			X						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL				0.41	151				
CHLAMYDOMONAS GLOBOSA	CEL				1.21	454				
CHLOROGONIUM	CEL				0.71	265				
CHRYSOPHYTAN CYST	CEL									X
CLOSTERIUM	CEL			X		X				
COCCOID COLONY	COL				0.38	114				
COELASTRUM CAMBRICUM	COL									X
COELASTRUM SPHAERICUM	COL				0.31	114				
COELOSPHAERIUM NAEGELIANUM	COL		0.41	39						X
COSMARIUM	CEL			X						
COSMARIUM #1	CEL				0.13	38				
COSMARIUM #2	CEL				0.13	38				
CRUCIGENIA APICULATA	COL				0.38	114				
CRUCIGENIA TETRAPEDIA	COL					X		11	4.21	983
CRYPTEMONAS	CEL		0.81	79					0.41	44
CRYPTEMONAS REFLEXA	CEL				1.38	492				
CRYPTOMONAS SPP.	CEL							21	4.21	983
CYCLOTELLA	CEL			X						
CYCLOTELLA MENEGHINIANA	CEL				183	63.41	23937	14	30.81	3238
DACTYLOCOCCOPSIS IRREGULARIS	COL			X						
DICTYOSPHAERIUM EHRENBERGIANUM	COL					X				
ELAKATOTHRIX	CEL									X
EPITHEMIA	CEL					X				
EUASTRUM DENTICULATUM	CEL					X				
EUGLENA	CEL		3.61	158					3.31	350
FLAGELLATE #1	CEL				0.13	38				
FLAGELLATE #4	CEL				6.51	2462				
FLAGELLATES	CEL			X						X
GLENODINIUM GYMNODINIOP										
GLENODINIUM GYMNODINIOR V. BISCUTELLIFORME	CEL				13	1.51	568			
GOLENKINIA	CEL				0.13	38				
GYMNOZINIUM ALBULUM	CEL					X				
GYMNODINIUM UNDINATUM	CEL								3.31	350
LAGERHEIMIA	CEL					0.13	38			
LEPOCINCLIS	CEL			X						
LYNGBYA LIMNETICA	FIL				24	2.51	947			
MELOSIRA	CEL					0.28	76		0.81	88
MELOSIRA DISTANS	CEL					0.71	265		0.81	88
MELOSIRA GRANULATA	CEL	14	3.41	294						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL					0.21	76		2.51	263
MERISMOPEDIA	COL					0.28	189			X
MERISMOPEDIA GLAUCA	COL									
MERISMOPEDIA TENUISSIMA	COL					1.61	606		0.41	44
MICROCYSTIS AERUGINOSA	COL			X						
MICROCYSTIS INCERTA	COL					0.91	341			
NEPHROCYTIUM ?	CEL						X			
NITZSCHIA	CEL						X			
NITZSCHIA #1	CEL					3.41	1288	131	6.71	700
NITZSCHIA #2	CEL								4.21	438
OOCYSTIS	CEL									
OSCILLATORIA	CEL			X						
PEDIASTRUM DUPLEX	FIL				121	2.61	985	151	21.71	2275
PEDIASTRUM DUPLEX V. RETICULATUM	COL					0.31	38			
PEDIASTRUM TETRAS	COL			X						X
PENNATE DIATOM	COL									
PENNATE DIATOMS	CEL		0.41	39					2.51	263
PERIDINIUM QUADRIDENS	CEL					0.21	76			X
PHACUS	CEL				X	0.13	38			
PHACUS CAUDATUS	CEL									X
PTEROMONAS ANGULOSA	CEL						X			
SCENEDESMUS ACUMINATUS	COL								0.41	44
SCENEDESMUS BICAUDATUS	COL					0.13	38			
SCENEDESMUS BIJUGA	COL								0.81	88
SCENEDESMUS DENTICULATUS	COL						X			X
SCENEDESMUS DIMORPHUS	COL									X
SCENEDESMUS QUADRICAUDA	COL									
	COL					0.41	151			

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LAKE NAME: FALSE RIVER
STORET NUMBER: 2212

CONTINUED

TAXA	FORM	08 21 74 %S	08 21 74 %C	08 21 74 ALGAL UNITS PER ML	08 29 74 %S	08 29 74 %C	08 29 74 ALGAL UNITS PER ML	11 12 74 %S	11 12 74 %C	11 12 74 ALGAL UNITS PER ML
SCHROEDERIA SETIGERA	CEL			X		0.01	227			
SPHAEROCYSTIS SCHROETERI	COL			X			X			
STAURASTRUM	CEL			X						
STAURASTRUM DEPRESSICEPS										
V. PLANICEPS	CEL					0.18	38			
STEPHANODISCUS	CEL				11%	4.[illegible]	1515			
STEPHANODISCUS NIAGARAE	CEL	85%	1.6%	356						
SYNEDRA #1	CEL					0.5%	114			
SYNEDRA RUMPENS	CEL								2.4%	44
SYNEDRA ULNA										
V. SPINICA	CEL						X			
TETRAEDRON	CEL					0.3%	114			
TETRAEDRON MINIMUM	CEL								2.1%	219
TETRAEDRON MINIMUM										
V. SCROBICULATUM	CEL					1.0%	379			
TETRAEDRON MUTICUM	CEL					0.1%	38			
TETRAEDRON TRIGONUM	CEL					0.1%	38			
TRACHELOMONAS	CEL			X						
TREUBARIA TRIAPPENDICULATA	CEL					0.1%	38			
TROCHISCIA ? GRANULATA	CEL									X
TOTAL				10009			37764			10506

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LAKE NAME: INDIAN
STORET NUMBER: 2213

NYGAARD TROPHIC STATE INDICES

DATE	03 22 74	05 30 74	11 12 74
MYXOPHYCEAN	0570 E	10.0 E	7.00 E
CHLOROPHYCEAN	0970 E	8.00 E	11.0 E
EUGLENOPHYTE	0.07 ?	0.33 E	0.22 E
DIATOM	1.00 E	0.60 E	0.44 E
COMPOUND	1870 E	27.0 E	26.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 22 74	05 30 74	11 12 74
GENUS	13	24	07
SPECIES	03	04	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 22 74	05 30 74	11 12 74
AVERAGE DIVERSITY	H	3.32	4.31	3.25
NUMBER OF TAXA	S	26.00	51.00	48.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.81	5.67	5.58
MINIMUM DIVERSITY	MINH	0.04	0.16	0.13
TOTAL DIVERSITY	D	32937.72	18515.76	16753.75
TOTAL NUMBER OF INDIVIDUALS/ML	N	9921.00	4296.00	5155.00
EVENESS COMPONENT	J	0.69	0.76	0.58
RELATIVE EVENESS	RJ	0.69	0.76	0.58
MEAN NUMBER OF INDIVIDUALS/TAXA	E	354.32	84.24	107.40
NUMBER/ML OF MOST ABUNDANT TAXON	K	2990.00	979.00	1685.00

LAKE NAME: INDIAN
STORET NUMBER: 2213

CONTINUED

TAXA	PLPN	23 22 74			25 30 74			31 32 74		
		BS	BC	ALGAL UNITS PER ML	BS	BC	ALGAL UNITS PER ML	BS	BC	ALGAL UNITS PER ML
ANABAENA #1	FIL					1.58	65			
ANABAENA #2	FIL						X			
ANKISTRODESMUS ? BRAUNII	CEL	1.78	173							
ANKISTRODESMUS FALCATUS	CEL	1.38	130		1.78	73		0.98	44	
APHANIZOMENON ?	FIL								X	
APHANOTHECE	COL	5.28	520							
APHANOTHECE NIDULANS ?	COL		X							
ARTHROSPIRA	FIL				0.38	12				
ASTERIONELLA	CEL				1.08	42				
ASTERIONELLA FORMOSA	CEL								X	
CENTRITRACTUS ?	CEL					X				
CERATIUM HIRUNDINELLA	CEL				0.38	12				
CHLAMYDOMONAS	CEL				6.38	260		0.98	42	
CHLORELLA ?	CEL				1.48	60				
CHLOROCOCCUM	CEL							0.48	21	
CHROOCOCCUS	COL				0.38	6				
CHRYSOPHYTAN FLAGELLATE	CEL				3.58	141				
CLOSTERIUM CAMPRICUM	COL					X				
CLOSTERIUM CAMERICUM V. INTERMEDIUM	COL			X						
COSMARIUM	CEL								X	
CRUCIGENIA	CEL				1.48	53				
CRUCIGENIA FENESTRATA	COL		9.48	87						
CRUCIGENIA TETRAPEDIA	COL							2.58	129	
CRYPTOMONAS	CEL	1.78	173							
CRYPTOMONAS EROSA	CEL		X						X	
CRYPTOMONAS REFLEXA	CEL					X				
CRYPTOMONAS SPP.	CEL				4.68	183	131	9.68	494	
CYANOPHYTAN FILAMENT	COL				1.78	72			X	
CYCLOTELLA	CEL	7.48	737							
CYCLOTELLA MENEGHINIANA	CEL								X	
CYCLOTELLA SPP.	CEL						111	26.78	1685	
CYCLOTELLA STELLIGERA	CEL				121	2.78	114		X	
DACTYLOCOCCOPSIS	CEL		X		2.28	96			X	
DICTYOSPHAERIUM	CEL	2.68	260					0.48	21	
DINOBRYON BAVARICUM	CEL	0.48	43		0.38	12			X	
DINOBRYON CYLINDRICUM	CEL								X	
DINOBRYON SERTULARIA	CEL								X	
DINOBRYON SPP.	CEL							0.88	42	
EUASTRUM DENTICULATUM	CEL					X				
EUDORINA ELEGANS	COL					X				
EUGLENA #1	CEL				1.78	73				
EUGLENA ACUS	CEL								X	
EUGLENA OXYURIS V. MINOR	CEL					X				
FUNDIA	CEL					X		0.48	22	
FLAGELLATE #1	CEL	2.68	260		6.78	287		0.98	44	
FLAGELLATE #3	CEL	4.48	433							
FLAGELLATE #9	CEL					X				
FRUSTULIA RHOMBOIDES	CEL								X	
GLENODINIUM GYMNODINIUM	CEL				1.38	54				
GLOEOMONIA	CEL								X	
GLOMERIMA	CEL								X	
HYPHYDRUM	CEL	0.48	43							
KIRCHNERIELLA	CEL	5.28	520		6.98	276		7.58	387	
LAGERHEIMIA	CEL							0.48	22	
LEPOCINCLIS ?	CEL					X				
LOBATE CELLED COLONY	COL				122.68	479				
LYNGBYA	FIL				0.48	18				
MALLOMONAS	CEL				2.38	91				
MALLOMONAS ACAPOIDES	CEL							0.88	42	
MELOSIRA DISTANS	CEL	20.58	2036		0.48	17	151	6.18	313	
MELOSIRA GRANULATA	CEL		X		0.68	24	62	12.58	843	
MERISMOPEDIA TENUISSIMA	COL	30.38	2990		0.78	30	141	13.58	697	
MICROCYSTIS AERUGINOSA	COL							1.28	63	
MICROCYSTIS INCERTA	COL				3.38	133		4.98	256	
ROUGEOTIA	FIL							0.48	22	
ROUGEOTIA ?	FIL				0.18	6				
NAVICULA	CEL				0.78	33				
NAVICULA SPP.	CEL							0.88	42	
NITZSCHIA	CEL	1.78	173							
NITZSCHIA ACICULARIS	CEL				6.38	270		0.88	42	
OOCYSTIS	CEL								X	
OSCILLATORIA	FIL	1.38	130					0.48	21	
OSCILLATORIA LIMNETICA	FIL				4.98	209				
PANDORINA MORUM	COL				0.58	23				
PENNATE DIATOM	CEL	1.78	173							
PERIDINIUM INCONSPICUUM	CEL				4.68	238			X	
PERIDINIUM WISCONSINENSE	CEL				0.58	32				
PHACUS	CEL					X				
SCENEDESMUS ARCUATUS										

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LAKE NAME: INDIAN
STORET NUMBER: 2213

CONTINUED

TAXA	FORM	03 22 74			05 30 74			11 12 74		
		BS	EC	ALGAL UNITS PER ML	BS	EC	ALGAL UNITS PER ML	BS	EC	ALGAL UNITS PER ML
V. PLATYDISCA	COL					0.13	6			
SCENEDESMUS BIJUGA	COL		0.43	43			X		0.83	42
SCENEDESMUS DENTICULATUS	COL								0.43	21
SCENEDESMUS QUADRICAUDA	COL			X						X
SCHIZOCHLAMYS ?	CEL	131	8.73	867						
SYNEDRA	CEL									
SYNEDRA #1	CEL									X
SYNEDRA ULNA	CEL									X
TABELLARIA FENESTRATA	CEL			X						
TETRAEDRON MINIMUM	CEL		0.43	43		5.23	222			
TETRAEDRON MUTICUM	CEL					0.13	6			
TETRAEDRON PENTAEDRICUM	CEL									X
TRACHELOMONAS HISPIDA	CEL					0.31	12			X
TRACHELOMONAS HISPIDA V. CORONATA	CEL									X
TRACHELOMONAS PULCHELLA	CEL		0.43	87						
TRACHELOMONAS VOLVOCINA	CEL					1.00	42			X
TOTAL				4921			4296			5155

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LAKE NAME: SALINE
STORET NUMBER: 2214

NYGAARD TROPHIC STATE INDICES

DATE	03 19 74	05 29 74	11 12 74
MYXOPHYCEAN	0170 E	1.00 E	0170 E
CHLOROPHYCEAN	0370 E	6.50 E	0370 D
EUGLENOPHYTE	0.50 E	0.47 E	3.00 E
DIATOM	0.50 E	2.00 E	1.00 E
COMPOUND	0770 E	13.0 E	0570 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 19 74	05 29 74	11 12 74
GENUS	08	21	04
SPECIES	00	05	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 19 74	05 29 74	11 12 74
AVERAGE DIVERSITY	H	2.70	3.65	2.05
NUMBER OF TAXA	S	13.00	39.00	8.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	3.70	5.29	3.00
MINIMUM DIVERSITY	MINH	0.05	0.11	0.11
TOTAL DIVERSITY	D	7670.70	17089.00	1410.40
TOTAL NUMBER OF INDIVIDUALS/ML	N	2841.00	4060.00	688.00
EVENESS COMPONENT	J	0.73	0.69	0.66
RELATIVE EVENESS	RJ	0.73	0.69	0.66
MEAN NUMBER OF INDIVIDUALS/TAXA	L	218.54	104.10	86.00
NUMBER/ML OF MOST ABUNDANT TAXON	K	1244.00	900.00	287.00

LAKE NAME: SALINE
STORET NUMBER: 2214

CONTINUED

TAXA	BIOM	8 19 74 BS	8 19 74 CC	8 19 74 ALGAL UNITS PER ML	05 09 74 BS	05 09 74 CC	05 09 74 ALGAL UNITS PER ML	11 12 74 BS	11 12 74 CC	11 12 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL				2.63		334			
ANABAENA	FIL						X			X
ANKISTRODESMUS FALCATUS	CEL				13	13.49	825			
CERATIUM HIRUNDINELLA										
F. FURCOIDES	CEL						X			
CLOSTERIUM #1	CEL						X			
CLOSTERIUM #2	CEL						X			
COELASTRUM CAMBRICUM										
V. INTERMEDIUM	COL						X			
CRUCIGENIA TETRAPEDIA	COL	1	8.33	237	1	2.63	334			
CRYPTOMONAS	CEL				1	4.93	227			
CRYPTOMONAS EVATA	CEL							1	16.73	115
CRYPTOMONAS REFLEXA	CEL	12	2.13	59						
CYCLOTELLA MENEGHINIANA	CEL	1	1	1	1	2.63	334			
DACTYLOCOCCOPSIS	CEL	13	10.73	474						
DICTYOSPHAERIUM PULCHELLUM	COL	1	1	1	1	1.23	57			
DINOBRYON	CEL	1	1	4.23	1	1	1			
EUGLENA	CEL	1	1	1	1	2.63	334			
FLAGELLATE #1	CEL	13	43.63	1244	1	1	X	15	8.33	57
FLAGELLATES	CEL	1	1	1	12	19.53	909			
GLEOCYSTIS	CEL	1	1	1	1	1.23	57			
KIRCHNERIELLA	CEL	1	1	1	15	9.73	454			
MALLOMONAS	CEL	1	1	1	1	1	X			
MELOSIRA DISTANS	CEL	15	8.33	237	1	6.43	284	13	43.73	287
MELOSIRA GRANULATA	CEL	1	1	1	11	11.13	511			
MELOSIRA GRANULATA										
V. ANGUSTISSIMA	CEL	1	1	1	1	1	X			
NITZSCHIA	CEL	1	1	1	14	9.73	454	13	25.03	172
NITZSCHIA #1	CEL	1	1	4.23	1	1	X			
OOCYSTIS	CEL	1	1	1	1	1	X			
OSCILLATORIA	FIL	1	1	1	1	2.63	334			
PEDIASTRUM BICAUDATA	COL	1	1	1	1	1	X			
PEDIASTRUM TETRAS										
V. TETRAODON	COL	1	1	1	1	1.23	57			
PENNATE DIATOM	CEL	1	1	2.13	59	1	1			
PHACUS	CEL	1	1	1	1	1	X			
PHACUS ACUMINATUS ?	CEL	1	1	1	1	1	1			X
PHACUS PYRUM	CEL	1	1	1	1	1	X			
PHACUS TORTUS	CEL	1	1	1	1	1	X			
PLEUROMONAS	CEL	1	1	2.13	59	1	1			
PTEROMONAS ANGULOSA	CEL	1	1	1	1	1.23	57			
SCENEDESMUS BICAUDATUS	COL	1	1	1	1	1	X			
SCENEDESMUS DENTICULATUS	CEL	1	1	1	1	1	X			
SCENEDESMUS INTERMEDIUS	COL	1	1	2.13	59	1	1	X		
SCENEDESMUS PECTUBERANS	COL	1	1	1	1	1	X			
SCENEDESMUS SPP.	COL	1	1	1	1	2.63	334			
TETRAEDRON	CEL	1	1	2.13	59	1	1			
TRACHELOMONAS	CEL	1	1	1	1	1	1	14	8.33	57
TRACHELOMONAS #1	CEL	14	4.23	118	1	1	1			
TRACHELOMONAS #2	CEL	1	1	1	1	1	X			
TRACHELOMONAS #3	CEL	1	1	1	1	1	X			
TRACHELOMONAS #4	CEL	1	1	1	1	1	X			
TRACHELOMONAS SPP.	CEL	1	1	1	1	0.13	284			
TRACHELOMONAS VOLVOCINA	CEL	1	1	1	1	1	1	1	1	X
TOTAL				2841			4883			688

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LAKE NAME: TURKEY
STORET NUMBER: 2215

NYGAARD TROPHIC STATE INDICES

DATE	03 19 74	05 30 74	11 11 74
MYXOPHYCEAN	4.00 E	4.50 E	1.00 E
CHLOROPHYCEAN	5.00 E	13.0 E	7.00 E
EUGLENOPHYTE	0.56 E	0.31 E	0.58 E
DIATOM	2.50 E	0.89 E	0.35 E
COMPOUND	19.0 E	27.0 E	14.6 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 19 74	05 30 74	11 11 74
GENUS	08	20	16
SPECIES	03	00	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 19 74	05 30 74	11 11 74
AVERAGE DIVERSITY	H	2.69	4.66	4.33
NUMBER OF TAXA	S	35.00	82.00	72.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.13	6.36	6.17
MINIMUM DIVERSITY	MINH	0.14	0.21	0.20
TOTAL DIVERSITY	D	8836.65	25129.80	20459.25
TOTAL NUMBER OF INDIVIDUALS/ML	N	3285.00	5463.00	4725.00
EVENESS COMPONENT	J	0.52	0.72	0.70
RELATIVE EVENESS	RJ	0.52	0.72	0.70
MEAN NUMBER OF INDIVIDUALS/TAXA	L	93.86	66.62	65.63
NUMBER/ML OF MOST ABUNDANT TAXON	K	1699.00	644.00	738.00

LAKE NAME: TURKEY
STORET NUMBER: 2215

CONTINUED

TAXA	FORM	03 19 74 BS	03 19 74 %	03 19 74 ALGAL UNITS PER ML	05 30 74 BS	05 30 74 %	05 30 74 ALGAL UNITS PER ML	11 11 74 BS	11 11 74 %	11 11 74 ALGAL UNITS PER ML
ACHNANTHES MICROCEPHALA	CEL						X			
ANABAENA #1	FIL						X			
ANABAENA #2	FIL				1	3.45	184			
ANKISTRODESMUS ?	CEL				1	2.30	123			
ANKISTRODESMUS FALCATUS	CEL	1	1.85	56			X	1	5.21	246
APHANOCAPSA	COL			X						
APHANOTHECE	COL						X			
ASTERIONELLA FORMOSA	CEL						X			
BOTRYOCOCCUS BRAUNII	COL			X						
CARTERIA	CEL			X						
CENTRIC DIATOM	CEL				1	10.11	552			
CHLOROPHYTAN FILAMENT #1	FIL						X			
CLOSTERIUM	CEL									X
CLOSTERIUM #1	CEL			X						
COCCONEIS	CEL						X			
COCCONEIS PLACENTULA	CEL									X
COELASTRUM CAMBRICUM	COL		*	X						
COELASTRUM CAMBRICUM ? V. INTERMEDIUM	COL				1	0.61	31			
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL				1	0.61	31			
COSMARIUM	CEL						X	1	1.21	55
CRUCIGENIA APICULATA	CEL			X	1	2.81	153			X
CRUCIGENIA TETRAPEDIA	COL				1	1.11	61	1	5.81	273
CRYPTOMONAS	CEL				1	3.91	215			
CRYPTOMONAS #1	CEL			X						
CRYPTOMONAS EROSA	CEL			X				1	9.81	465
CRYPTOMONAS OVATA	CEL			X						
CRYPTOMONAS REFLEXA	CEL				1	3.91	215			
CRYPTOMONAS SPP.	CEL		2.81	86						
CYANOPHYTAN FILAMENT	FIL		1.81	58						
CYCLOTELLA	CEL									X
CYCLOTELLA MENEGHINIANA	CEL						X	1	0.61	27
CYCLOTELLA STELLIGERA	CEL						X			
CYMBELLA	CEL						X			X
DACTYLOCOCCOPSIS IRREGULARIS	CEL				15	11.81	644			
DICHOTOMOCOCCUS	COL				1	0.61	31			
DICTYOSPHAERIUM PULCHELLUM	COL				1	1.11	61	1	0.61	27
DINOBRYON	CEL			X	1	0.61	31			
DINOFLAGELLATE	CEL							1	0.61	27
ELAKATOTHRIX	COL						X			
EPITHEMIA	CEL									X
EPITHEMIA TURGIDA	CEL									X
EUASTRUM DENTICULATUM	CEL						X			X
EUDORINA ELEGANS	COL	1	0.91	29						
EUGLENA	CEL				1	0.61	31			
EUGLENA #1	CEL			X				1	2.91	137
EUGLENA #2	CEL							1	0.61	27
EUGLENA ACUS	CEL							1	0.61	27
EUGLENA OXYURIS V. MINOR	CEL									X
EUGLENOID CELL	CEL			X						
FUNGTIA	CEL							1	0.61	27
FUNOTIA PECTINALIS V. VENTRICOSA	CEL									X
FLAGELLATE #1	CEL	11	51.71	1699			X			
FLAGELLATE #2	CEL	1			1	0.61	31			
FLAGELLATE #4	CEL						X			
FLAGELLATE #9	CEL	15	6.41	144						
FLAGELLATES	CEL							1	15.61	738
FRUSTULIA RHOMBOIDES	CEL									X
GLENODINIUM OCULATUM	CEL			X	1	0.61	31			
GOMPHONEMA ACUMINATUM	CEL									X
GYMNODINIUM	CEL						X			
GYROSIGMA	CEL									X
KIRCHNERIELLA ? SUBSOLITARIA	COL						X	1	0.61	27
LEPOCINCLIS	CEL							1	1.21	55
LUNATE CELL	CEL							1	1.71	82
LYNGBYA	FIL						X			
MALLOMONAS	CEL			X			X			
MELOSIRA DISTANS	CEL	14	7.01	230	14	8.71	368	1	7.51	355
MELOSIRA GRANULATA	CEL	13	6.11	202	1	2.81	153	1	6.91	328
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL	12	19.51	346			X			X
MELOSIRA ITALICA	CEL	1			12	5.11	276			
MELOSIRA VARIANS	CEL			X						
MERISMOPEDIA TENUISSIMA	COL	1	0.91	29	1	1.11	61	1	0.61	27
MESOSTIGMA VIRIDIS	CEL							1	0.61	27
MICROCYSTIS INCERTA	COL				1	1.11	61	1	0.61	27
NAVICULA	CEL						X			X
NAVICULA CAPITATA V. LUNEBURGENSIS	CEL									X
NITZSCHIA	CEL							1	1.71	82

LAKE NAME: TURKEY
STORET NUMBER: 2215

CONTINUED

TAXA	FORM	03 19 74 BIOVOLUME CU MICRONS	03 19 74 ALGAL UNITS PER ML	05 30 74 BIOVOLUME CU MICRONS	05 30 74 ALGAL UNITS PER ML	11 11 74 BIOVOLUME CU MICRONS	11 11 74 ALGAL UNITS PER ML
NITZSCHIA #1	CEL			1.1E	61		
NITZSCHIA #2	CEL			X	X		
NITZSCHIA CAPITATA	CEL					X	X
OPHIOCYTIUM CAPITATUM	CEL			X	X	X	X
OSCILLATORIA	FIL			11.2E	613		
OSCILLATORIA LIMNETICA	FIL	2.6E	86			0.6E	27
PANDORINA MORUM	COL	9.9E	29			X	X
PANDORINA PRUTUBERANS	COL			X	X		
PEDIASTRUM BICAUDATA	COL			X	X		
PEDIASTRUM BICAUDATA V. LONGECORNUTUM	COL	1.1E	61			X	X
PEDIASTRUM DUPLEX	COL		115	4.5E	245	X	X
PEDIASTRUM DUPLEX V. RETICULATUM	COL			0.6E	31		
PEDIASTRUM TETRAS V. TETRADON	COL			X	X	-	-
PENNATE DIATOM	CEL	3.5E	115			X	X
PHACUS	CEL		X	2.3E	127	0.6E	27
PHACUS #1	CEL					X	X
PHACUS ACUMINATUS	CEL					1.2E	55
PHACUS HELIKOIDES	CEL					0.6E	27
PHACUS PYRUM	CEL					0.6E	27
PINNULARIA				X	X		
PINNULARIA BRAUNII V. AMPHICEPHALA	CEL					X	X
PTEROMONAS ANGULOSA	CEL	1.8E	58	1.1E	61		
RAPHIDIOPSIS	FIL			X	X		
SCENEDESMUS	COL					X	X
SCENEDESMUS #1	COL			X	X		
SCENEDESMUS ABUNDANS	COL			X	X	X	X
SCENEDESMUS ARCUATUS V. PLATYDISCA	COL					1.7E	82
SCENEDESMUS BICAUDATUS	COL			X	X	3.5E	164
SCENEDESMUS BIJUGA	COL			2.6E	153		
SCENEDESMUS BRASILIENSIS	COL			X	X		
SCENEDESMUS DENTICULATUS	COL			X	X	X	X
SCENEDESMUS DIMORPHUS	COL			0.6E	31		
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL			0.6E	31		
SCENEDESMUS OPOLIENSIS	COL					1.7E	82
SCENEDESMUS QUADRICAUDA	COL		X	X	X	1.2E	55
SCENEDESMUS SPP.	COL			2.6E	153		
SPERMATOZOOPSIS	CEL			X	X		
SPERMATOZOOPSIS EXULTANS	CEL					0.6E	27
STEPHANODISCUS	CEL			X	X	311.6E	547
STEPHANODISCUS ?	CEL		X				
SURIRELLA	CEL					X	X
SYNEDRA	CEL		X	1.7E	92	0.6E	27
SYNURA	CEL			X	X		
TETRAEDRON CRUCIATUM	CEL					X	X
TETRAEDRON GRACILE	CEL					0.6E	27
TETRAEDRON MINIMUM	COL			X	X		
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					X	X
TETRAEDRON TRIGONUM	CEL			0.6E	31	X	X
TETRAEDRON TRIGONUM V. GRACILE	CEL					0.6E	27
TETRASTRUM STAUROGENIAEFORME	COL					X	X
TRACHELOMONAS FLUVIATILIS	CEL					1.2E	55
TRACHELOMONAS HISPIDA	CEL					3.5E	164
TRACHELOMONAS HISPIDA V. PUNCTATA	CEL			X	X		
TRACHELOMONAS LACUSTRIS	CEL			X	X		
TRACHELOMONAS LONGICAUDA	CEL			X	X		
TRACHELOMONAS OBLONGA V. AUSTRALICA ?	CEL			X	X		
TRACHELOMONAS PULCHELLA	CEL	1.8E	58				
TRACHELOMONAS ROTUNDATA	CEL			X	X		
TRACHELOMONAS ROTUNDATA ?	CEL	1.8E	58				
TRACHELOMONAS SCABRA	CEL			0.6E	31		
TRACHELOMONAS STOKESII	CEL			2.6E	153		
TRACHELOMONAS VERRUCOSA V. ZRIENIKA	CEL					X	X
TRACHELOMONAS VOLVOCINA	CEL			2.6E	153		
TRACHELOMONAS VOLVOCINA V. COMPRESSA ?	CEL			X	X		
TRACHELOMONAS VOLVOCINA V. PUNCTATA ?	CEL					5.2E	246
TREUBARIA TRIAPPENDICULATA	CEL			1.7E	92		
TOTAL			3285		5463		4725

LAKE NAME: VERRET
STORET NUMBER: 2216

NYGAARD TROPHIC STATE INDICES

DATE	03 20 74	05 29 74	08 21 74
MYXOPHYCEAN	03/0 E	11.0 E	1..0 E
CHLOROPHYCEAN	05/0 E	21.0 E	23.0 E
EUGLENOPHYTE	0.25 E	0.16 ?	0.27 E
DIATOM	1.50 E	0.67 E	1.00 E
COMPOUND	13/0 E	41.0 E	43.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 20 74	05 29 74	08 21 74
GENUS	14	24	25
SPECIES	03	08	04

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 20 74	05 29 74	08 21 74
AVERAGE DIVERSITY	H	2.77	1.89	2.62
NUMBER OF TAXA	S	16.00	54.00	59.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	3.00	4.00
MAXIMUM DIVERSITY	MAXH	4.17	5.75	5.88
MINIMUM DIVERSITY	MINH	0.03	0.01	0.01
TOTAL DIVERSITY	D	26079.55	253677.69	329098.20
TOTAL NUMBER OF INDIVIDUALS/ML	N	9415.00	134221.00	125610.00
EVENESS COMPONENT	J	0.66	0.33	0.45
RELATIVE EVENESS	RJ	0.67	0.33	0.45
MEAN NUMBER OF INDIVIDUALS/TAXA	L	523.06	2485.57	2128.98
NUMBER/ML OF MOST ABUNDANT TAXON	K	3772.00	93324.00	68499.00

LAKE NAME: VERRET
SECRET NUMBER: 2216

CONTINUED

TAXA	FORM	13 20 74 IS	13 20 74 %C	13 20 74 ALGAL UNITS PER ML	15 29 74 IS	15 29 74 %C	15 29 74 ALGAL UNITS PER ML	08 21 74 IS	08 21 74 %C	08 21 74 ALGAL UNITS PER ML
ANABAENA	CEL		T		T	0.21	266	T	T	T
ANABAENA #1	FIL		T		T	T	X	131	0.98	1139
ANABAENOPSIS	FIL		T		T	T		T	0.18	163
ANABAENOPSIS CIRCULARIS	FIL		T		T	T		151	1.41	1790
ANABAENOPSIS ELENKINII	FIL		T		T	0.21	266	T	T	T
ANABAENOPSIS PHILIPPINENSIS	FIL		T		T	T		T	2.31	2929
ANABAENOPSIS RACIBORSKII	FIL		T		131	3.31	4436	T	T	T
ANKISTRODESMUS FALCATUS	CEL	131	15.21	1429	T	1.71	2306	T	T	X
APHANIZOMENON FLOS-AQUAE	FIL		T		151	1.31	1686	T	T	T
CARTERIA CORDIFORMIS	CEL		T		T	T	T	T	0.31	325
CENTRIC DIATOM	CEL		T		T	1.51	2040	T	2.51	3091
CHLAMYDOMONAS #1	CEL		T		T	T	T	T	T	X
CHLAMYDOMONAS CIENKOWSKII	CEL		T		T	T	T	T	0.51	651
CHLOROGONIUM	CEL		T		T	0.31	355	T	0.41	488
CLOSTERIDIUM ?	CEL		T		T	0.11	89	T	T	T
COELASTRUM CAMBRICUM			T		T	T	T	T	T	T
V. INTERMEDIUM	COL		T		T	T	T	T	0.41	488
COELASTRUM SPHAERICUM	COL		T		T	0.11	89	T	T	T
COSMARIUM	CEL		T		T	T	T	T	T	X
CRUCIGENIA	COL		T		T	T	T	T	T	X
CRUCIGENIA TETRAPEDIA	COL		T		T	T	T	T	0.41	488
CRYPTOMONAS	CEL		T		T	0.31	444	T	T	T
CRYPTOMONAS EROSA	CEL	T	1.21	110	T	T	T	T	0.61	814
CYCLOTELLA	CEL	T	2.31	220	T	T	X	T	T	X
CYLINDROSPERMUM ?	FIL		T	T	T	T	T	T	0.51	651
DACTYLOCOCCOPSIS IRREGULARIS	CEL		T	T	141	13.21	17742	T	T	T
EUASTRUM DENTICULATUM	CEL		T	T	T	T	X	T	T	T
EUGLENA	CEL	T	0.81	73	T	0.11	177	T	T	X
EUGLENA ACUS	CEL		T	T	T	T	T	T	0.31	325
FLAGELLATE #1	CEL		T	T	T	0.71	976	T	T	T
FLAGELLATE #4	CEL		T	T	T	T	T	T	0.11	163
FLAGELLATES	CEL	121	16.71	1575	T	T	T	T	T	T
FRANCEIA OVALIS	CEL		T	T	T	T	T	T	T	X
GLENODINIUM GYMNODINIUM	CEL	T	T	T	T	T	X	T	T	T
GLENODINIUM GYMNODINIUM		T	T	T	T	T	T	T	T	T
V. BISCUTELLIFORME	CEL	T	T	T	T	T	T	T	T	X
GOLENKINIA	CEL	T	T	T	T	0.11	89	T	T	T
GYMNODINIUM ORDINATUM	CEL	T	T	T	T	T	T	T	0.11	163
GYROSIGMA	CEL	T	T	T	T	T	X	T	T	T
KIRCHNERIELLA	CEL	T	T	T	T	T	T	T	1.01	1302
LYNGBYA CIRCULARIS	FIL	T	T	T	T	T	X	T	T	T
LYNGBYA LIMNETICA	FIL	151	3.91	366	141	1.51	1452	121	16.21	20338
MELOSIRA #4	CEL	T	0.81	73	T	T	T	T	T	T
MELOSIRA DISTANS	CEL	T	0.81	73	T	T	T	T	0.51	651
MELOSIRA GRANULATA	CEL	T	T	T	T	T	T	T	T	X
MELOSIRA GRANULATA		T	T	T	T	T	T	T	T	T
V. ANGUSTISSIMA F. SPIRALIS	CEL	T	T	T	T	0.21	266	T	T	T
MERISMOPEDIA TENUISSIMA	COL	T	4.71	440	T	0.71	976	T	1.81	2278
MICRACTINIUM	COL	T	T	T	T	T	T	T	T	X
MICROCYSTIS	COL	T	T	T	T	T	T	T	0.61	814
MICROCYSTIS INCERTA	COL	T	1.21	110	T	0.11	177	T	T	T
NAVICULA	CEL	T	T	T	T	0.11	89	T	1.21	1464
NAVICULA CASCADENSIS	CEL	T	T	T	T	T	X	T	T	T
NEPHROCYTIUM	COL	T	T	T	T	0.31	355	T	T	T
NITZSCHIA	CEL	T	T	T	T	1.91	2573	T	T	T
NITZSCHIA ACICULARIS	CEL	T	T	T	T	0.51	710	T	T	T
NITZSCHIA HOLSATICA	CEL	T	T	T	T	T	T	T	T	X
NITZSCHIA PALEA	CEL	T	T	T	T	T	T	T	T	X
OSCILLATORIA	FIL	T	T	T	111	69.51	93324	T	T	T
OSCILLATORIA GEMINATA ?	FIL	T	T	T	T	T	T	111	54.51	68499
PANDORINA MORUM	COL	T	T	T	T	T	X	T	T	T
PEDIASTRUM DUPLEX		T	T	T	T	T	T	T	T	T
V. RETICULATUM	COL	T	T	T	T	T	X	T	T	T
PEDIASTRUM SIMPLEX		T	T	T	T	T	T	T	T	T
V. DUODENARIUM	CEL	T	T	T	T	T	X	T	T	T
PEDIASTRUM TETRAS		T	T	T	T	T	T	T	T	T
V. TETRAODON	COL	T	T	T	T	T	X	T	0.31	325
PENNATE DIATOMS	CEL	111	40.11	3772	T	T	T	T	T	T
PERIDINIUM	CEL	T	T	T	T	T	T	T	0.31	325
PERIDINIUM PUSILLUM	CEL	T	0.81	73	T	T	T	T	T	T
PERIDINIUM QUADRIDENS	CEL	T	T	T	T	0.11	89	T	T	T
PHACUS ACUMINATUS ?	CEL	T	T	T	T	T	T	T	T	X
PHACUS ANOMALUS	CEL	T	T	T	T	T	X	T	T	T
PHACUS GLABER	CEL	T	T	T	T	T	T	T	T	X
PHACUS MEGALOPSIS	CEL	T	T	T	T	T	X	T	T	X
PHACUS PSEUDONORDSTEDTII	CEL	T	T	T	T	T	T	T	T	X
RAPHIDIOPSIS CURVATA	FIL	T	T	T	T	T	T	141	7.61	9600
SCENEDESMUS #2	COL	T	T	T	T	T	T	T	0.11	163
SCENEDESMUS ABUNDANS	COL	T	T	T	T	T	X	T	0.11	163
SCENEDESMUS BICAUDATUS	COL	T	T	T	T	T	X	T	T	X
SCENEDESMUS DIMORPHUS	COL	T	T	T	T	0.11	89	T	0.11	163
SCENEDESMUS OBLIQUUS	COL	T	T	T	T	T	T	T	T	X
SCENEDESMUS PROTUBERANS	CEL	T	T	T	T	0.51	621	T	T	T
SCENEDESMUS QUADRICAUDA	COL	T	T	T	T	0.21	266	T	0.41	488

LAKE NAME: VERRET
STORET NUMBER: 2216

CONTINUED

TAXA	FORM	03 20 74 IS	03 20 74 %C	03 20 74 ALGAL UNITS PER ML	05 29 74 IS	05 29 74 %C	05 29 74 ALGAL UNITS PER ML	08 21 74 IS	08 21 74 %C	08 21 74 ALGAL UNITS PER ML
SCENEDESMUS SPP.	COL	141	9.01	643	1	1		1	1	
SCHROEDERIA SETIGERA	CEL	1	1		1	0.11	177	1	1	
SPERMATOZOOPSIS	CEL	1	1.21	110	1	1		1	1.71	2115
STEPHANODISCUS	CEL	1	1		1	1	X	1	1	
STEPHANODISCUS ASTRAEA	CEL	1	1		1	1		1	1	X
SURIRELLA	CEL	1	0.41	37	1	1		1	1	X
SURIRELLA LINEARIS	CEL	1	1		1	1	X	1	1	
SYNEDRA	CEL	1	1		1	1		1	1.61	1952
TETRAEDRON GRACILE	CEL	1	1		1	1	X	1	1	
TETRAEDRON MINIMUM	CEL	1	0.41	37	1	1		1	1	
TETRAEDRON MINIMUM		1	1		1	1		1	1	
V. SCROBICULATUM	CEL	1	1		1	0.61	798	1	0.51	651
TETRAEDRON MUTICUM	CEL	1	1		1	0.11	177	1	0.31	325
TETRAEDRON REGULARE	CEL	1	1		1	0.11	89	1	0.11	163
TETRAEDRON REGULARE		1	1		1	1		1	1	
V. INCUS	CEL	1	0.41	37	1	0.11	89	1	1	X
TETRASTRUM HETERACANTHUM	COL	1	1		1	0.11	89	1	1	
TETRASTRUM STAUROGENIAEFORME	COL	1	1		1	1		1	0.11	163
TRACHELOMONAS	CEL	1	0.41	37	1	1		1	1	
TRACHELOMONAS #1	CEL	1	1		1	1		1	1	X
TRACHELOMONAS VOLGENSIS	CEL	1	1		1	1	X	1	1	
TRACHELOMONAS VOLVOCINA	CEL	1	1		1	0.11	177	1	1	X
TREUBARIA SETIGERUM	CEL	1	1		1	1		1	1	X
TREUBARIA TRIAPPENDICULATA	CEL	1	1		1	0.11	177	1	1	
TOTAL				9415			134721			125610

LAKE NAME: VERNON
STORET NUMBER: 2217

NYGAARD TROPHIC STATE INDICES

DATE	03 20 74	05 30 74	11 08 74
MYXOPHYCEAN	03/0 E	4.00 E	5.00 E
CHLOROPHYCEAN	05/0 E	7.00 E	7.00 E
EUGLENOPHYTE	0/08 ?	0.18 ?	0/12 ?
DIATOM	1.00 E	02/0 E	1.50 E
COMPOUND	10/0 E	15.0 E	15.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 20 74	05 30 74	11 08 74
GENUS	03	11	03
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 20 74	05 30 74	11 08 74
AVERAGE DIVERSITY	H	2.50	2.06	3.79
NUMBER OF TAXA	S	21.00	28.00	26.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.39	4.81	4.70
MINIMUM DIVERSITY	MINH	0.14	0.02	0.07
TOTAL DIVERSITY	D	4212.50	39558.18	18972.74
TOTAL NUMBER OF INDIVIDUALS/ML	N	1685.00	19203.00	9006.00
EVENESS COMPONENT	J	0.57	0.43	0.81
RELATIVE EVENESS	RJ	0.56	0.43	0.81
MEAN NUMBER OF INDIVIDUALS/TAXA	L	80.24	685.82	192.54
NUMBER/ML OF MOST ABUNDANT TAXON	K	723.00	10222.00	935.00

LAKE NAME: VERNON
STORET NUMBER: 2217

CONTINUED

TAXA	FORM	08 20 74 IS	08 20 74 %C	08 20 74 ALGAL UNITS PER ML	08 30 74 IS	08 30 74 %C	08 30 74 ALGAL UNITS PER ML	11 08 74 IS	11 08 74 %C	11 08 74 ALGAL UNITS PER ML
ANKISTRODESMUS ?	CEL						X		0.9%	47
ANKISTRODESMUS FALCATUS	CEL		2.8%	48						
APHANOTHECE CLATHRATA	COL				12%	29.6%	5080			
ARTHRODESMUS	CEL					0.2%	46		X	
ASTERIONELLA FORMOSA	CEL			X						
ASTERIONELLA FORMOSA V. GRACILLIMA	CEL								0.9%	47
BINUCLEARIA	FIL								X	
BINUCLEARIA ?	FIL					0.4%	82			
CENTRIC DIATOM	CEL	13%	14.3%	241		0.5%	91			
CHLAMYDOMONAS	CEL					0.7%	144			
CHRYSOPHYTAN FLAGELLATE #2	CEL					0.7%	144			
CRUCIGENIA QUADRATA	COL			X		2.3%	442		3.7%	187
CRUCIGENIA TETRAPEDIA	COL					0.4%	62		1.9%	94
CRYPTOMONAS	CEL								2.8%	140
CRYPTOMONAS EROSA	CEL	12%	23.0%	337	14%	2.1%	399			
CYANOPHYTAN FILAMENT	FIL		2.8%	48		0.4%	72			
CYCLOTELLA	CEL							14%	10.3%	514
CYCLOTELLA STELLIGERA	CEL									X
CYST	CEL			X						
DACTYLOCOCCOPSIS	CEL								2.8%	140
DACTYLOCOCCOPSIS IRREGULARIS	CEL		2.8%	48						
DICTYOSPHAERIUM	COL			X		0.6%	108	13%	5.6%	281
DINOBRYON ?	CEL									X
DINOBRYON SOCIALE	CEL			X						
DINOFLAGELLATE	CEL								1.9%	94
ELAKATOTHRIX	COL								0.9%	47
EUGLENA	CEL				15%	0.6%	108			
FLAGELLATE #1	CEL					1.1%	199		4.7%	234
FLAGELLATE #2	CEL								3.7%	187
FLAGELLATE #9	CEL			X						
GLOEOCYSTIS	COL						X			
GYMNODINIUM ?	CEL					0.4%	72			
GYMNODINIUM ALBULUM	CEL		2.8%	48						
KIACHNEXIELLA	CEL					2.3%	442		7.5%	374
LUNATE CELL	CEL					1.1%	183			
LYNGBYA	FIL									X
MALLOMONAS	CEL						X			
MALLOMONAS ACAROIDES	CEL			X						
MELOSIRA DISTANS	CEL	11%	42.9%	723	13%	3.4%	651	1	13.1%	655
MERISMOPEDIA TENUISSIMA	COL			X	11%	53.2%	10222	12%	18.7%	935
MICROCYSTIS	COL						X			
MICROCYSTIS AERUGINOSA	COL							1%	7.5%	374
MICROCYSTIS INCERTA	COL							9%	9.3%	468
NOSTOCHOPSIS	FIL			X						
NITZSCHIA	CEL								0.9%	47
OOCYSTIS	CEL								0.9%	47
OOCYSTIS PUSILLA	COL	8%	2.8%	48						
OPHIOCYTIUM	CEL								0.9%	47
PALMELLOID COLONY	COL						X		0.9%	47
PERIDINIUM INCONSPICUUM	CEL			X			X			
PLEUROCAPSA	COL						X			
QUADRIGULA	COL					0.2%	36			
SCHIZOCHLAMYS COMPACTA ?	CEL			X						
SYNEDRA	CEL	14%	5.7%	96						
TETRAEDRON TRIGONUM	CEL		2.8%	48						
TETRAEDRON TRIGONUM V. GRACILE	CEL						X			
TRACHELOMONAS	CEL						X			
TOTAL				1685			19203			5006

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LAKE NAME: BLACK
STORET NUMBER: 2219

NYGAARD TROPHIC STATE INDICES

DATE	05 30 74	08 23 74
MYXOPHYCEAN	2.50 E	3.33 E
CHLOROPHYCEAN	4.00 E	5.00 E
EUGLENOPHYTE	0.38 E	0.20 ?
DIATOM	1.00 E	0.05 ?
COMPOUND	10.0 E	10.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 30 74	08 23 74
GENUS	24	12
SPECIES	07	01

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		05 30 74	08 23 74
AVERAGE DIVERSITY	H	4.16	2.65
NUMBER OF TAXA	S	32.00	47.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	1.00
MAXIMUM DIVERSITY	MAXH	5.00	5.55
MINUMUM DIVERSITY	MINH	0.05	0.04
TOTAL DIVERSITY	D	41575.04	50092.95
TOTAL NUMBER OF INDIVIDUALS/ML	N	9994.00	18903.00
EVENESS COMPONENT	J	0.83	0.48
RELATIVE EVENESS	RJ	0.84	0.48
MEAN NUMBER OF INDIVIDUALS/TAXA	L	312.31	402.19
NUMBER/ML OF MOST ABUNDANT TAXON	K	1133.00	9900.00

LAKE NAME: BLACK
STORET NUMBER: 2229

CONTINUED

TAXA	FORM	05 30 74 BS	05 30 74 %	05 30 74 ALGAL UNITS PER ML	08 23 74 BS	08 23 74 %	08 23 74 ALGAL UNITS PER ML
ANABAENA #1	FIL					0.49	74
ANABAENA #2	FIL						X
ANABAENA #3	FIL						X
ANABAENOPSIS RACIBORSKII	FIL				128	7.18	1340
ANKISTRODESMUS	CEL					2.03	372
ANKISTRODESMUS FALCATUS	CEL		2.08	200			
APHANOTHECE NIDULANS	COL					3.65	670
ASTERIONELLA FORMOSA							
V. GRACILLIMA	CEL						X
ATTHEYA	CEL		10.78	1066			
CHLAMYDOMONAS	CEL		2.78	266			
CHLOROGONIUM	CEL						X
CLOSTERIUM	CEL		1.38	133		0.49	74
COCCONEIS	CEL						X
COSMARIUM	CEL						X
CRUCIGENIA APICULATA	COL		0.78	67			X
CRUCIGENIA QUADRATA	COL						X
CRUCIGENIA SPP.	COL					1.68	298
CRUCIGENIA TETRAPEDIA	COL						X
CRYPTOMONAS	CEL						X
CRYPTOMONAS EROSA ?	CEL		6.78	666			
CYANOPHYTAN FILAMENT	COL		8.08	799		1.23	223
DACTYLOCOCCOPSIS	CEL				14	15.48	2903
DICTYOSPHAERIUM	COL		0.78	67			
DICTYOSPHAERIUM EHRENBERGIANUM	COL					0.49	74
DINOBRYON	CEL					0.49	74
DINOBRYON BAVARICUM	CEL	128	5.38	533			
DINOFLAGELLATE	CEL					0.49	74
EUGLENA	CEL	158	2.08	200			
EUGLENA #1	CEL						X
EUGLENA #2	CEL						X
EUGLENA SPP.	CEL				138	1.23	223
FLAGELLATE #1	CEL		1.38	133			
FLAGELLATE #3	CEL		10.78	1066			
GLENODINIUM GYMNODINIUM	CEL						X
KIRCHNERIELLA	CEL		11.38	1133			X
LEPOCINCLIS ACUTA	CEL			X			
LYNGBYA LIMNETICA	FIL				11	52.48	9900
MELOSIRA DISTANS	CEL			X			
MERISMOPEDIA TENUISSIMA	COL		6.78	666			
MICROCYSTIS INCERTA	COL	138	5.38	533			X
NITZSCHIA	CEL		6.08	600			X
NITZSCHIA ACICULARIS	CEL					2.88	521
OOCYSTIS	CEL					1.23	223
OPHIOCYTIUM	CEL					1.68	298
PERIDINIUM INCONSPICUUM	CEL	158	2.78	266			
PHACUS #1	CEL						X
PHACUS #2	CEL						X
PHACUS #3	CEL						X
PHACUS CAUDATUS	CEL		0.78	67			
PHACUS MEGALOPSIS	CEL			X			
PTEROMONAS	CEL		5.38	533			
PTEROMONAS ANGULOSA	CEL			X			
RAPHIDIOPSIS	FIL		5.38	533		0.49	74
RAPHIDIOPSIS CURVATA	FIL			X			
SCENEDESMUS	COL						X
SCENEDESMUS BICAUDATUS	COL			X			X
SCENEDESMUS QUADRICAUDA	CEL		0.78	67			
SCHROEDERIA SETIGERA	CEL		2.08	200			X
SPERMATOZOOPSIS	CEL				15	3.58	670
STAURASTRUM	CEL			X		1.23	223
SYNEDRA	CEL		2.78	266			
TABELLARIA FENESTRATA	CEL					2.03	372
TETRAEDRON CAUDATUM	CEL						X
TETRAEDRON MINIMUM	CEL		0.78	67		0.81	149
TETRAEDRON REGULARE	CEL					0.49	74
TETRAEDRON REGULARE							
V. INCUS	CEL						X
TRACHELOMONAS URCEOLATA ?	CEL		0.78	67			
TREUBARIA TRIAPPENDICULATA	CEL						X
TOTAL				9994			18903

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LAKE NAME: CUCODRIE
STORET NUMBER: 2220

NYGAARD TROPHIC STATE INDICES

DATE	05 29 74	11 12 74
MYXOPHYCEAN	3770 E	10.0 E
CHLOROPHYCEAN	1170 E	19.0 E
EUGLENOPHYTE	0.07 E	0.21 E
DIATOM	0.27 ?	1.75 E
COMPOUND	3370 E	42.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 29 74	11 12 74
GENUS	18	18
SPECIES	00	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		05 29 74	11 12 74
AVERAGE DIVERSITY	H	3.63	2.82
NUMBER OF TAXA	S	52.00	55.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	2.00
MAXIMUM DIVERSITY	MAXH	5.70	5.78
MINIMUM DIVERSITY	MINH	0.07	0.02
TOTAL DIVERSITY	D	36866.28	108065.22
TOTAL NUMBER OF INDIVIDUALS/ML	N	10156.00	38321.00
EVENESS COMPONENT	J	0.64	0.49
RELATIVE EVENESS	RJ	0.64	0.49
MEAN NUMBER OF INDIVIDUALS/TAXA	L	195.31	696.75
NUMBER/ML OF MOST ABUNDANT TAXON	K	1592.00	17947.00

LAKE NAME: COCODRIE
SITE# NUMBER: 2220

CONTINUED

TAXA	FERM	05 29 74 BS	05 29 74 SC	05 29 74 ALGAL UNITS PER ML	11 12 74 BS	11 12 74 SC	11 12 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL						X
ANABAENA CIRCINALIS ?	FIL				1.0I	1.2I	470
ANABAENOPSIS	FIL				1.0I	1.4I	549
ANKISTRODESMUS	CEL						X
ANKISTRODESMUS ?	CEL	1.0I	7.6I	796			
ANKISTRODESMUS FALCATUS	CEL					1.6I	705
APHANIZOMENON FLOS-AQUAE	FIL			X			
APHANOCAPSA	COL						X
CENTRIC DIATOM	CEL	1.0I	8.8I	896			
CENTRIC DIATOMS	CEL					1.4I	549
CERATIUM HIRUNDINELLA	CEL			X			
CERATIUM HIRUNDINELLA F. BRACHYCERAS							
CLOSTERIOPSIS	CEL						X
COCCONEIS	CEL						X
CORELASTRUM CAMBRICUM V. INTERMEDIUM	CEL						X
COSMARIUM	COL						X
CRUCIGENIA FENESTRATA	CEL					0.2I	78
CRUCIGENIA TETRAPEDIA	COL	1.0I	1.0I	100			
CRYPTEMONAS	COL			X			X
CRYPTEMONAS EROSA	CEL						X
CRYPTEMONAS REFLEXA	CEL	11.8I	11.8I	1194			
CYANOPHYTAN FILAMENT	CEL	1.0I	1.0I	100			
CYCLOTELLA MENEGHINIANA	FIL						X
DACTYLOCOCCOPSIS	CEL						X
DACTYLOCOCCOPSIS IRREGULARIS	CEL	14.7I	14.7I	1493	17.0I	17.0I	6505
DICTYOSPHAERIUM EHRENBERGIANUM	CEL	1.0I	1.0I	100			
DINOBRYON SOCIALE	CEL			X			
ECHINOSPHAERELLA LIMNETICA	CEL	1.0I	1.0I	100			
EUGLENA #1	CEL	2.0I	2.0I	199	0.8I	0.8I	313
EUGLENA #2	CEL			X	0.6I	0.6I	235
EUGLENA ACUS	CEL	1.0I	1.0I	100	0.2I	0.2I	78
EUNOTIA CURVATA	CEL			X			
EUNOTIA FLEXUOSA V. EURYCEPHALA							
FLAGELLATE #1	CEL			X			
FLAGELLATES	CEL						
FRUSTULIA RHOMBOIDES	CEL	15.7I	15.7I	1592	1.8I	1.8I	705
GOLENKINIA	CEL			X			
GOMPHONEMA ACUMINATUM	CEL			X			
GOMPHONEMA CLEVAEUM	CEL			X			
GYROSIGMA	CEL			X			
KIRCHNERIELLA	CEL						X
LEPOCINCLIS OVUM	CEL				1.0I	1.0I	392
LUNATE CELL	CEL			X			
LYNGBYA LIMNETICA	CEL				0.8I	0.8I	313
MELOSIRA DISTANS	FIL				46.8I	46.8I	17947
MELOSIRA GRANULATA	CEL				5.3I	5.3I	2038
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL			X			X
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL				1.2I	1.2I	470
MERISPOPEDIA CLALCA	CEL						X
MERISPOPEDIA TENUISSIMA	COL	1.0I	1.0I	100			
MESOSTIGMA VIRIDIS	COL			X			X
MICROCYSTIS INCERTA	CEL						X
NITZSCHIA #1	COL				2.5I	2.5I	940
NITZSCHIA ACICULARIS	CEL						X
NITZSCHIA SPP.	CEL						X
OOCYSTIS	CEL				17.8I	18.0I	6875
OSCILLATORIA #1	CEL						X
OSCILLATORIA TENUIS	FIL	2.2I	8.9I	897			
PEDIASTRUM BICAUDATA	FIL			X			
PEDIASTRUM TETRAS V. TETRADORA	COL						X
PERIDINIUM INCONSPICUUM	COL				0.4I	0.4I	157
PHACUS	CEL			X			
PHACUS CAUDATUS	CEL						X
PHACUS HELIKOIDES	CEL			X			
PHACUS PLEURONECTES	CEL			X			
PHACUS PYRUM	CEL			X			
PHACUS SUECICUS	CEL				0.2I	0.2I	78
PINNULARIA	CEL			X			
PINNULARIA ABAUJENSIS	CEL			X			
PITHOPHORA OEDOGONIA	CEL			X			
PTEROMONAS ANGULOSA	FIL			X			
RAPHIDIOPSIS	CEL						X
RAPHIDIOPSIS CURVATA	FIL						X
RHIZOSOLENIA	FIL				0.8I	0.8I	235
SCENEDESMUS	CEL	1.0I	1.0I	100			
	COL				1.6I	1.6I	627

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LAKE NAME: CROCODILE
STORET NUMBER: 2220

CONTINUED

TAXA	FORM	05 29 74 IS	05 29 74 3C	05 29 74 ALGAL UNITS PER ML	11 12 74 IS	11 12 74 3C	11 12 74 ALGAL UNITS PER ML
SCENEDESMUS BICAUDATUS	CEL						X
SCENEDESMUS BIJUGA	CEL		1.0%	100			
SCENEDESMUS DENTICULATUS	CEL			X			
SCENEDESMUS DIMORPHUS	CEL						X
SCENEDESMUS QUADRICAUDA	CEL						X
SCHROEDERIA SETIGERA	CEL					0.0%	235
SPERMATOZOOPSIS	CEL					0.0%	235
SPHAEROCYSTIS SCHROETERI	COL			X			
SPIRULINA MAJOR	CEL			X			
STEPHANODISCUS	CEL						X
SURIRELLA	CEL			X			
SYNEDRA	CEL	13	13.7%	1393			
SYNEDRA ULNA	CEL			X			
TABELLARIA	CEL			X			
TETRAEDRON GRACILE	CEL			X			X
TETRAEDRON MINIMUM							
V. SCROBICULATUM	CEL					0.4%	157
TETRAEDRON MUTICUM	CEL					0.2%	78
TETRAEDRON REGULARE	CEL		1.0%	100			
TETRASTRUM HETERACANTHUM	COL						X
TRACHELOMONAS	CEL					0.4%	157
TRACHELOMONAS DUBIA	CEL			X			
TRACHELOMONAS HISPIDA	CEL		2.0%	199			
TRACHELOMONAS SCHAUINSLANDII	CEL		1.0%	100			
TRACHELOMONAS VOLVOCINA	CEL		5.9%	597			
ZYGOTE	CEL		1.0%	100			
TOTAL				10156			38321

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